VBrick
EtherneTV Portal Server

EtherneTV v4.4.3 Portal Server
User Guide

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12 Beaumont Road
Wallingford, Connecticut 06492, USA
www.VBrick.com

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About VBrick Systems

Founded in 1997, VBrick Systems, an ISO 9001 certified vendor, is a privately held company that has enjoyed rapid growth by helping our customers successfully introduce mission critical video applications across their enterprise networks. Since our founding, VBrick has been setting the standard for quality, performance and innovation in the delivery of live and stored video over IP networks—LANs, WANs and the Internet. With thousands of video appliances installed world-wide, VBrick is the recognized leader in reliable, high-performance, easy-to-use networked video solutions.

VBrick is an active participant in the development of industry standards and continues to play an influential role in the Internet Streaming Media Alliance (ISMA), the MPEG Industry Forum, and Internet2. In 1998 VBrick invented and shipped the world's first MPEG Video Network Appliance designed to provide affordable DVD-quality video across the network. Since then, VBrick's video solutions have grown to include Video on Demand, Management, Security and Access Control, Scheduling, and Rich Media Integration. VBrick solutions are successfully supporting a broad variety of applications including distance learning and training, conferencing and remote office communications, security, process monitoring, traffic monitoring, business and news feeds to the desktop, webcasting, corporate communications, collaboration, command and control, and telemedicine. VBrick serves customers in education, government, healthcare, and financial services markets among others.

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Portal Server v4.4.3 User Guide

This *Portal Server User Guide* is written for anyone who will be using or evaluating the VBrick EtherneTV Portal Server. This includes system administrators, software developers, network technicians, and end users in a variety of business environments. The EtherneTV Portal Server is a web-based portal for accessing and managing video assets including both live or stored audio and video files. The ETV Portal Server is a key component in VBrick's EtherneTV Media Distribution System. The ETV Portal Server provides a simple, intuitive interface that easily discovers available media assets in your network. Key components in VBrick's EtherneTV solution include:

- EtherneTV-VOD Video-on-Demand Servers – Provides all standard video-on-demand (VOD) features including support for MPEG, WM (Windows Media), and H.264 for maximum flexibility.
- VBrick Hardware Encoders/Decoders – Rugged, reliable video appliances that can reside anywhere on your network to provide either distributed or high-density centralized encoding/decoding of MPEG, WM (Windows Media), and H.264 video.
- EtherneTV IP Receivers – Leading edge digital set top boxes that provide a low-cost standalone decoder for DVD-quality MPEG, H.264, and Windows Media video assets.

Organization

Introduction	provides a brief overview of the Portal Server and includes desktop requirements and a description of the home page.
Using the Portal Server	explains how to use all of the major functionality in the ETV Portal Server. It includes an Introduction and an overview of Desktop Requirements and step-by-step procedures that guide you through the entire application.
Using the Scheduler	explains how to create scheduled events including live and stored broadcasts, conferences, recordings, and scripts.
Using the Remote Controllers	explains how to use the remote controllers for the Portal Server, the WM IP Receiver (Amino), and the Digital IP Receiver (Set Top Box).

Getting Help

If you need help, or more information about any topic, use the online help system. The online help is cross-referenced and searchable and can usually find the information in a few seconds. Use the tree controls in the left pane to open documents and the up and down arrows to page through them. Use the **Search** box to find specific information. Simply enter one or more words in the box and press Enter. The search results will return pages that have all of the words you entered—highlighted in yellow (Internet Explorer only). The **Search** box is not case-sensitive and does not recognize articles (a, an, the), operators (+ and –), or quotation marks. You can narrow the search by *adding* words.

If you can't find the information you need from the online help, or from your certified VBrick reseller, you can contact VBrick Support Services on the web. Support Services can

usually answer your technical questions in 24 business hours or less. Also note that our publications team is committed to accurate and reliable documentation and we appreciate your feedback. If you find errors or omissions in any of our documents, please send e-mail to documentation@vbrick.com and let us know. For more information about any VBrick products, all of our product documentation is available on the web. Go to www.vbrick.com/documentation to search or download VBrick product documentation.

Font Conventions

Arial bold is used to describe dialog boxes and menu choices, for example: **Start > All Programs > VBrick**

`Courier fixed-width font` is used for scripts, code examples, or keyboard commands.

`Courier bold fixed-width font` is used for user input in scripts, code examples, or keyboard commands.

This bold black font is used to strongly emphasise important words or phrases.

`Folder names and user examples in text` are displayed in this sans serif font.

`User input in text` is displayed in this bold sans serif font.

Italics are used in text to emphasize specific words or phrases.

Printer-Friendly

Click on the following link to print a hard copy of this document.

ETV Portal Server User Guide

▼ To save or print a PDF document

1. Click once to open the PDF document in Acrobat Reader.
2. To save or print a PDF document, right-click and select **Save Target As** or **Print Target**.

Chapter 1

Introduction

Topics in this section

Overview 1
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Overview

The VBrick EtherneTV Portal Server is a web-based portal for accessing Live and On-Demand audio and video files. A key component of VBrick's EtherneTV Media Distribution System, the ETV Portal Server provides a simple interface to easily locate available media assets from Windows PCs, Apple Macintoshes, and IP Receivers. Upon accessing the main portal page, users can navigate or search for specific videos, select the video, and immediately begin viewing television quality video. For on-demand videos, users can **Fast Forward**/**Rewind** and **Seek** to specific points in the video. Details on the specific functionality are included later in this document. The EtherneTV Portal Server can be accessed by Windows-base PCs, Macintoshes, or by the EtherneTV IP Receiver (IPR). For the most part, the operation of the Portal Server is the same from a Windows-based PC, an Apple Macintosh (see note below), or an IPR but there are some subtle differences. The majority of this document is written from a PC perspective, so certain screen shots may be slightly different on a Macintosh or a IP Receiver. For example, the Macintosh client can be configured to use QuickTime Player (or the VBrick Player) to display video. With QuickTime, the player window will look different from the screen shots provided here.

Desktop Requirements

The following requirements show what is required on each *end user* desktop in order to run the Portal Server interface. The user interface in the ETV Portal Server is designed for viewing at a screen resolution of 1024x768. Lower screen resolutions may not display properly. **Note that the Admin Console runs only on Internet Explorer.**

Table 1. Desktop Requirements

PC Type	Requirements
Windows PCs	• Windows 2000, XP (Service Pack 3), or Vista. • 750 MHz Pentium III processor (Pentium IV required for H.264). • 512 MB RAM (1 GB recommended for H.264). • SVGA video card 1024x768, video card acceleration and 32 bit color recommended. • Minimum 250 MB hard disk space for installation. • Microsoft Internet Explorer 6.0 or higher. • Microsoft Windows Media Player 9.0 or higher. • Firefox 2.0 or higher. • DirectX Media Version 8.1 and higher.

PC Type	Requirements
Macintosh PCs	• Mac OS X 10.3 or higher for PowerPC. • Mac OS X 10.4 or higher for Intel-based PC. • Firefox for Macintosh 2.0 or higher. • QuickTime Player 6.0 or higher. • Internet Explorer on a Macintosh is not supported.
Linux PCs	• Red Hat Fedora 9.1 • Firefox 2.0. • 512 MB RAM.

Table 2. Supported Desktop Operating Systems and Browsers †

Operating System	Browser †
Windows 2000	Internet Explorer 6.0, Firefox 2.0
Windows XP	Internet Explorer 6.0, Firefox 2.0
Windows Vista	Internet Explorer 7.0, Firefox 2.0
Mac OS X 10.3 (Panther)	Safari 3.1.1, Firefox 2.0
Mac OS X 10.4 (Tiger)	Safari 3.1.1, Firefox 2.0
Mac OS X 10.5 (Leopard)	Safari 3.1.1, Firefox 2.0
Linux Red Hat 9.0	Firefox 2.0
Linux Fedora 9.1	Firefox 2.0

† Use version shown or higher.

Downloaded Components

For Windows PC users, the ETV Portal Server uses VBrick StreamPlayer software-based components to decode video streams on the desktop. Depending on how your system is configured, the Portal Server may need to download components to your computer the first time you access the server. No download is necessary for subsequent access. You must answer **Yes** to security requests when prompted to download components. The ETV Portal Server may require the installation of up to five components. If you check the box **Always trust content from VBrick Systems Incorporated**, any required components will be automatically downloaded the next time they are needed. After a download, you don't have to restart your computer—just close the browser.

Firefox users will also be prompted to install additional components the first time you launch a stream—if you are configured to receive these download components. Links for the appropriate stream types (MPEG, WM, and/or H.264) will be displayed in the area where the embedded player is normally displayed. These additional plugins *must* be installed. You will also be required to install an additional plugin when you use **Add Video** for the first time (if you have permission).

For Macintosh PC users, the Portal Server may need to download components to your computer the first time you access the server. If so, the Home page (see Figure 1) displays a link prompting you to download components that are appropriate for your computer. If you

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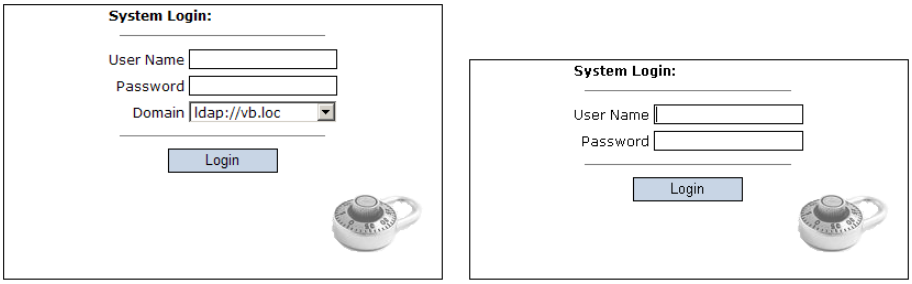
agree, these components are automatically installed and no additional download is necessary for subsequent access.

For Linux PC users, the Portal Server may need to download components to your computer the first time you access the server. This can only be performed by a system administrator. See "Installing Linux Components" in the *Portal Server Release Notes*.

Portal Server Home Page

Login Window

The ETV Portal Server Home page is automatically displayed when you logon with a valid **Username** and **Password**. All ETV Portal Server functionality and commands are available from this page but you may not have access to all features and functions depending on your user privileges. For example, you may not be able to access certain live broadcasts or VOD servers. *Note that after three unsuccessful logon attempts, you will need to close the window and start again.*



▼ To launch the ETV Portal Server Home Page:

1. Open a browser that is appropriate for your operating system Supported browsers for Windows, Macintosh, and Linux are shown in Table 2.
2. Enter the ETV Portal Server hostname or IP address (e.g. **http:// mcsservername**) in the address bar.
3. Log in with a valid **User Name** and **Password** to launch the Portal Server (Figure 1). If your site uses multiple authentication servers, you may need to select a **Domain** name as well. Contact your system administrator for more information.
4. Depending on how your system is configured, the Portal Server may need to download additional components the first time you access the server. If prompted to download components, you must answer **Yes** to the security requests.
5. Use the navigation bar at the bottom of the page to access other Portal Server pages. All Portal Server features and functions are briefly described below and explained in detail later in this guide. Remember that depending on your privileges you may not have access to some functions in which case these items are not shown on the navigation bar.

Home Page

There is no specific Portal Server "home" page. When started, the Portal Server displays the **Live Broadcasts**, **Asset Library**, or **Scheduling** page, depending on which page you last accessed. All of the options on the navigation footer are explained below the following screenshot.

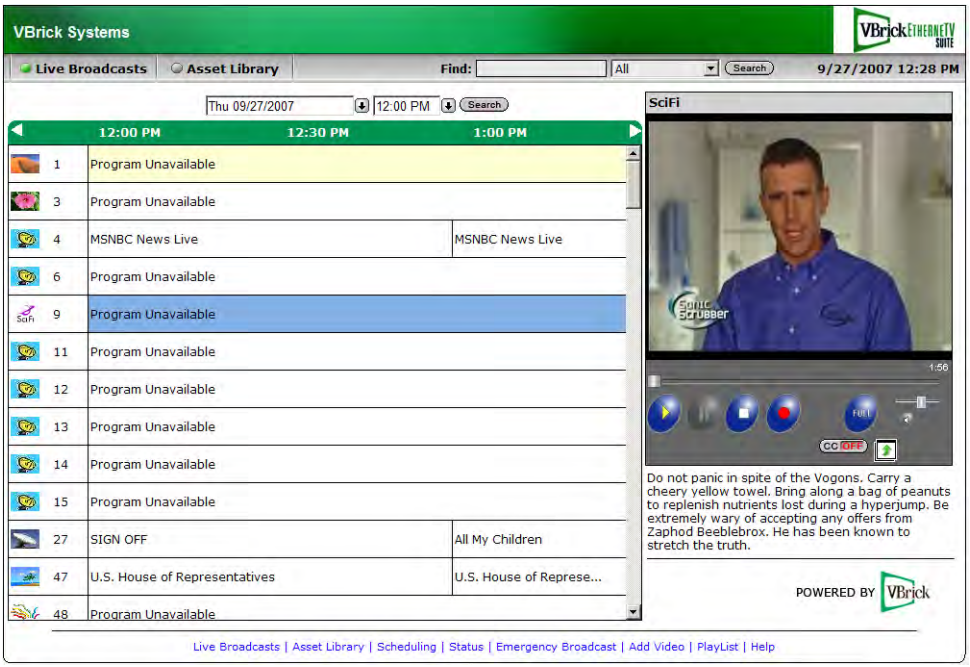


Figure 1. Live Broadcasts Page

Live Broadcasts	View live streams (for example, TV channels) currently available on the network. See Live Broadcasts on page 5.
Asset Library	View pre-recorded content available from the VOD (Video-on-Demand) servers on your network. See Asset Library on page 12.
Scheduling	View or create scheduled broadcasts of live or stored content. See Using the Scheduler on page 29.
Status	Shows the status of any videos currently being added or recorded. See Status on page 19.
Priority Alert	Launch a previously-defined emergency broadcast that preempts all other content. See Priority Alert on page 20.
Add Video	If you have publishing permissions you can publish an MPEG, WM, or H.264 video that you recorded using a VBStar or StreamPlayer Plus. See Add Video on page 21.
Presentations	Launches a page from which you can access legacy rich media presentations that were published to an earlier version of the Portal Server. See Presentations on page 27. If you have no have legacy presentations, this hyperlink is not shown.
Playlist	Opens the Playlists page from which you can create and manage playlists. See Playlists on page 23.
Help	Get help for any Portal Server feature or function. See Getting Help on page v.
Logout	Always log out when done. The system will automatically log you out if idle for more than a few minutes. See Logout on page 28.

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Chapter 2

Using the Portal Server

Some Portal Server functionality may be restricted to certain users. If you are not authorized to launch a **Priority Alert** or **Add Video**, for example, those menu items will not be displayed on the navigation footer on the Portal Server home page as shown in Figure 2. Your system may also have a hand-held remote control device. The VB-PC Remote is a hand-held infrared device that can be used to control (stop/start/pause etc.) any stream running on the Portal Server. After you *manually* start a stream using the Portal Server interface, you can use the VB-PC Remote to control it. The remote controller has a line-of-sight range of approximately 40 feet. See Using the VB-PC Remote on page 49 for more information.

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Live Broadcasts

The **Live Broadcasts** page lets you view live streams, TV stations, and rich media presentations available on the network. The list of available streams is determined by the VBricks or other encoders in your network. The administrator can assign a channel number, an icon, and other data to a live video stream. The channel appears as a number in a column to the left of each live stream. To launch a live broadcast or a presentation, simply click on any live channel and it will launch in the "preview window" on the right. The preview window has standard video controls. For example, click **Full** to go to full screen; press **Esc** to return to preview. If you receive a message indicating the broadcast exceeds the maximum number of concurrent viewers, contact a system administrator. The **Live Broadcasts** page may include some or all of the following items:

- Custom Stations (created by ETV administrators)
- TV Stations (provided by a third-party vendor)
- VBrick SAP live streams
- Manually-entered stream URLs
- Active scheduled stored broadcasts
- Rich media presentations

Channel Guide

The **Live Broadcasts** page has a list of streams and stations. The "Channel Guide" is simply the list of stations (both custom stations and TV stations) shown at the top of the list. Custom Stations are defined by an administrator at your site. TV Stations already have program information provided by a third-party content provider. Other auto-discovered streams on your network may be displayed but these do not include "programming" data and are not considered to be part of the Channel Guide. The message "Program Unavailable" in the Channel Guide means there is no programming data associated with the stream. *It does not mean the stream itself is unavailable.* You can still click on the stream to launch it in the preview window. The message "Sign Off" means a network TV Station (for example ABC or CNN) does not have programming scheduled in that time slot. During "Sign Off" time, local stations air their local content. You can perform all of the following tasks from the Channel Guide:

- Navigate and view program information
- Play programs and record programs
- Schedule program recording
- View recording information
- View station information

Note VBrick has partnered with a leading content provider, to provide news, information, and entertainment content on the Portal Server. This is optional service that requires a license and may not be supported at your site. The program listing includes some 80+ television programs. These programs are generally all "network" listings, such as ABC, CBS, NBC, CNN, National Geographic Channel, etc. The programming is hosted on a VBrick-maintained server.

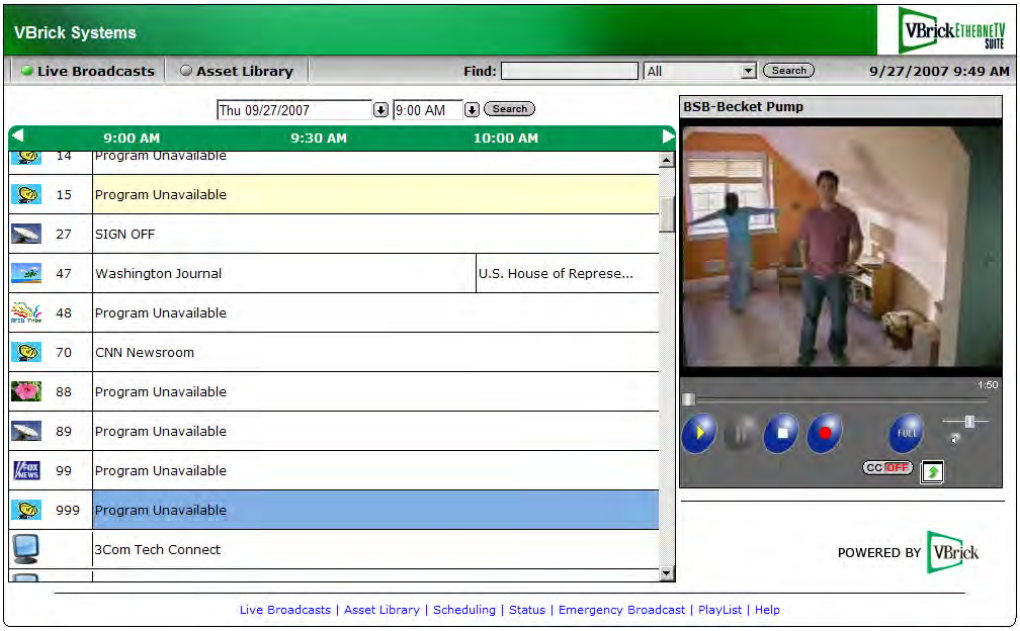

Figure 2. Live Broadcasts (Channel Guide)

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Note A red Record image in the Channel Guide is a visual cue that indicates a recording is in progress or scheduled. You use the Record push button below the preview window to record a live stream or the Record Program option on the popup menu to record (or schedule a recording of) a program

Find	Find content using specific search criteria. Enter characters or text, for example type "CNN," in the text field on the left and click **Search**. You can search by **All**, **Title**, **Keyword**, **Description**, or any custom fields created by an administrator. The results of the search are displayed in a new window. To return to the original program listing, click **Live Broadcasts**.
Date/Time Box	Use to display programming for a different date and time in the Channel Guide. You can also enter the values manually as long as you use the same format. Alternately, you can use the left and right arrows to advance to the next hour.
Icon and Channel Number	Icon and number assigned to the station. Mouseover the icon to and click **View Info** to display additional information about the station.
Program Name	The program name (or stream name) for the current time period. Use the right or left arrows (or search using the Date/Time search box) to display a different time slot. Mouseover the program name and click **Info** to display any custom program data entered by an administrator. Note that the message "Program Unavailable" means there is no programming data associated with the stream. *It does not mean the stream is unavailable.* You can still click on the stream to launch it in the preview window. The message "Sign Off" means a network TV Station (for example ABC or CNN) does not have programming scheduled in that time slot. During "Sign Off" time, local stations air their local content. This popup also has options that let you record a program in progress or schedule a future recording. • Record Program – Use to start or stop a recording of the video currently playing in the preview window. • Schedule Options – Opens the Scheduler in order to schedule a future recording. See Record on page 41 for more about scheduled recording.

<table>
<tr><td>Icons</td><td>The Live Broadcasts page shows stations and streams that can be requested and played. Each item has its own icon and is preceded by a channel number.<table>
<tr><td> </td><td>Custom icons can be assigned by an administrator to each station. A station may, or may not, have programming data.</td></tr>
<tr><td> </td><td>This icon denotes standard live streams. For example TV channels, without programming data, may have this icon.</td></tr>
<tr><td> </td><td>This icon denotes rich media presentations (those that have both video and PowerPoint slides, for example). See the VBPresenter User Guide for more about rich media presentations.</td></tr>
<tr><td> </td><td>This icon denotes live streams from a DVD, VCR, or other device (for example a satellite receiver) that can be controlled from the Portal Server. See Controlling Live Streams on page 11 for details.</td></tr>
</table></td></tr>
<tr><td>Selection</td><td>To select a video to preview, move the cursor over the desired entry and click once using the left mouse button. This launches the video in the Preview Window (the embedded video player area at the right side of the window).</td></tr>
<tr><td>Scroll Up/Down</td><td>The scroll bar on the right of the table of available videos allows the user to scroll up or down through the entries. You can also scroll up or down through the entries by using a mouse wheel or standard keyboard keys such as Page Up and Page Down.</td></tr>
<tr><td>Preview Window</td><td>The embedded video player area at the right side of the window. In certain instances where the video links to a non-MPEG video file, an external player, such as Windows Media Player, Real Player, or QuickTime Player, may launch to play the stream.
</td></tr>
</table>

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Control Buttons

The icons on the bottom of the Preview Window control the video. (*Note that the controls shown here for live broadcasts are different from those used for stored videos.*) The buttons shown are for the Windows-based player. (Macintosh users may see the QuickTime Player buttons.) Mouseover each button to see the tool tip title.

- **Seek** – Slider at top. Not used with live video.
- **Play** – Starts the video stream if it was previously stopped.
- **Pause** – Not used with live broadcasts.
- **Stop** – Stops the video from playing. *Does not stop recording.*
- **Record** – Records the video to the VOD server. Depending on your user permissions you may not have the ability to record. Press once to start recording; press again to stop recording. Click on **Status** to see the progress of recording.
- **Full** – Selecting the icon changes the view to Full Screen. To exit Full Screen, press **Esc** on the keyboard.
- **Volume** – Use slider to adjust volume.
- **Mute** – Click to mute volume.
- **CC On/Off** – Turn closed captions on or off.
- **Launch External Player** – Launches the player in another browser window along with the control buttons. Once the window is launched, subsequent selections will play in the external player. The launched window can be moved or resized. Closing the main ETV Portal Server window leaves the smaller player on the screen. The viewer can be resized by dragging from the corners or sides. The player can also be configured by an administrator so that multiple streams can be displayed in separate windows. See Viewing Multiple Streams on page 10.

- **Time Counter** – The time counter displays the amount of time elapsed since the viewer began running the currently selected video.

Messages	The **Messages** area under the control panel displays any Global Message entered by the administrator; it will also display additional information about the selected video if it was customized by an administrator. The video title is shown above the Preview Window.

Viewing Multiple Streams

The video player can be configured by an administrator so that you can view multiple streams in separate windows. Click on any live or recorded stream and then click the **Launch External Player** button below the preview window. If this feature is enabled, you can repeat this step to launch multiple streams in separate windows. This feature is particularly useful in security and surveillance applications. Note that the number of streams you can view display depends on the resources of your computer. Note also that when multiple windows are displayed, recording and bookmarking on the external windows is disabled. *You can only record the stream currently displayed in the preview window.*

▼ To tile your screen as shown below:

1. Right-click in an empty area on the Windows taskbar at the bottom of your screen.
2. Then select **Tile Windows Horizontally** or **Tile Windows Vertically**.
3. When done click **Undo Tile**.

Recording Live Streams

If you have permission, you can record any live channels being played in the Preview Window. (You cannot record or copy stored videos.) The live channel gets recorded and auto-ingested, usually into an assigned folder on the VOD server. The default recording *length* is defined by an administrator but you can stop recording at any time. See "Control Buttons" described above for a description of all the controls in the Preview Window.

▼ To start recording:

1. Launch a live channel.

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2. Press the red "record" button under the preview window. A message will note that a recording is in progress. Optionally, you can mouseover the program name and select **Record Program**. A red ball in the Channel Guide (Figure 2) indicates that a recording is in progress.

▼ To stop recording:

1. Press the red "record" button again. A message will note that the recording has been stopped.
2. If necessary, go to the **Status** page to view the status (or cancel) any "record" or auto-ingestion in progress. See Status on page 19 for more about this page.

Customizing Live Streams

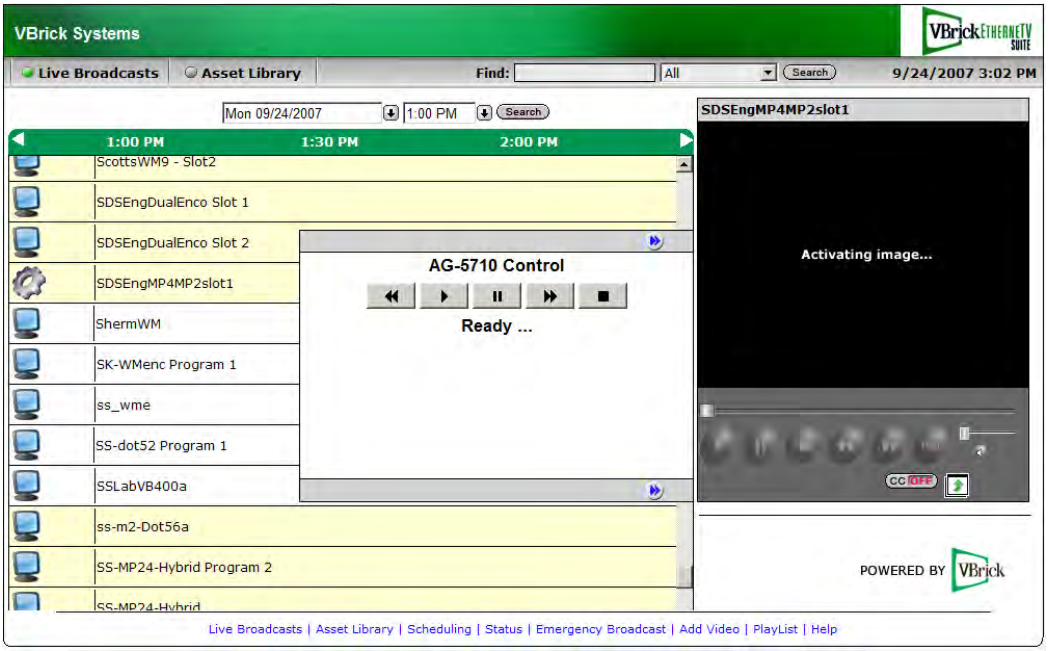
Note *End users cannot customize live streams.* Administrators can customize live streams by changing the name, channel number, and adding keywords, custom fields, etc. Live streams are broadcast by VBricks and auto-discovered by the Portal Server. They cannot be added or removed except at the VBrick layer using the IWS (Integrated Web Server) program.

Live streams can only be customized by administrators as explained in the ETV Portal Server Admin Guide. Live streams that have been customized will display a **View Info** hyperlink when you mouseover the stream icon on the **Live Broadcasts** page. This page is used to display additional information about the stream. For example it may have a description or keywords that can be used for searching, as well as links to external web sites and desktop files like PowerPoint presentations. You must have the appropriate application (for example PowerPoint) installed locally in order to open these files.

Controlling Live Streams

If defined by an administrator, DVDs, VCRs, and other devices can be controlled remotely using a graphical control panel on the screen. For example, you can start, stop, rewind, or fast forward a DVD player using the control panel associated with that device on

the **Live Broadcasts** page. Once a device has been defined, it is available to all users (with access to that device) unless it is reserved for a scheduled event. If reserved for a scheduled event and in order to avoid conflicts, only the user who created the schedule can access the device. (Mouseover the hyperlink for a schedule event to see the owner.) Once defined, you can control a device using a graphical control panel. On the **Live Broadcasts** page, any stream originating from a control device is distinguished by a special icon. Click on the icon to launch the stream and the control panel for the device. The control panel you see will vary depending on the actual device. Click on the arrow icons on the right side of the panel to show or hide the panel.



Asset Library

If the ETV Portal Server installation includes one or more VOD Video-on-Demand servers, the **Asset Library** link on the home page displays a list of content stored in folders and files on the server. Note that you will only see those folders for which you have been given permission. To launch a stored video, simply click on any video and it will launch in the Preview Window. Note that video content may be limited to a specific number of viewers. If you receive a message indicating the stream exceeds the maximum number of concurrent viewers, contact a system administrator. You can use the following keyboard shortcuts to work with streams if you first click on the player.

Table 3. Keyboard Shortcuts

Shortcut	Description
Ctrl+P	Play (from the beginning)
Ctrl+S	Stop
Ctrl+Shift+F	Fast Forward
Ctrl+Shift+B	Rewind

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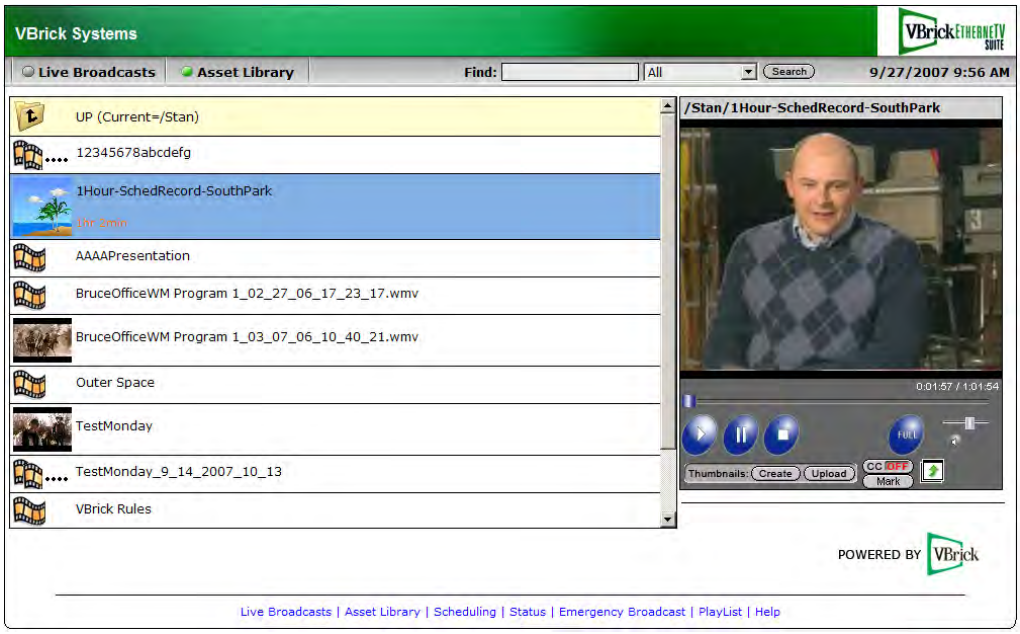
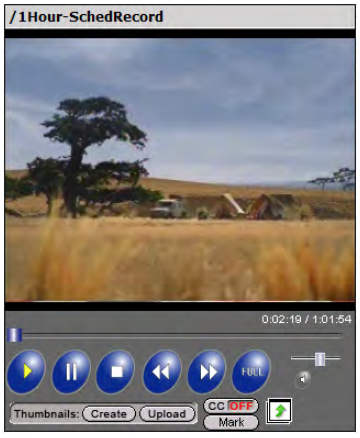


Figure 3. Asset Library

Title	The title of the video clip is displayed after the icon indicating it is a video clip. A a thumbnail which provides a visual preview as to what is in the clip.	
Search	Find videos using search criteria. Enter characters or text, for example type "CNN," in the text field on the left. You can search by **All**, **Title**, **Keyword**, **Description**, or any custom field created by an administrator. The results of the search are displayed in the program listings area (the main area of the window). To return to the program listing, click on **Asset Library**.	
Folders		This information is obtained from the VOD server(s). The folders are listed in alphabetical order by default and may contain subfolders. These folders are created on the Servers page in the Admin Console.
Folder Up		When inside a folder, the top row displays the folder up icon. Select this icon to move up one folder level.

Content	The Asset Library folders have streams that can be requested and played. Each listing displays either a default file icon or a thumbnail image of the clip (see Creating Thumbnails on page 17), as well as information about the clip such as duration and keywords.	
		This icon denotes standard video content. It can be replaced by an image or a thumbnail.
		This icon is used for bookmarks and playlists. Playlists are used to consolidate several video files, or video file segments, into a single, *virtual* video file.
		You can replace the standard video icon with a custom image or a thumbnail of any frame. See Creating Thumbnails on page 17 for details.
		This icon denotes rich media presentations (those that have both video and PowerPoint slides, for example). See the *VBPresenter User Guide* for more about rich media presentations.
		This icon denotes documents (PDFs, Word documents, etc.) that were manually entered by an administrator.
		This icon denotes content (PowerPoint presentations, Flash demos, etc.) that was manually entered by an administrator.
Scroll Up/Down	The scroll bar on the right of the table of available videos allows the user to scroll up or down through the entries. Users can also scroll up or down through the entries by using a mouse wheel or standard keyboard keys such as Page Up and Page Down.	
Preview Window	The Preview Window is embedded on the right side of the window. To select a video to preview, position the cursor button over the desired entry and use the left mouse button to select. When an entry is selected, it appears in the Preview Window. Note: In certain instances where the video link is to a non-MPEG video, an external player, such as Windows Media Player, Real Player, or QuickTime Player, may launch to play the stream. 	

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Control Buttons	 The icons on the bottom of the Preview Window control the video. (*Note that the controls here are different from those used for live broadcasts, for example, there is no Record button.)* Mouseover each button to see the button title. Note that Seek, Rewind, and Fast Forward are not available with MPEG-4 content. • **Seek** – Use slider at top of control panel to move forward or backward in the video. • **Play** – Starts the video stream if it was previously stopped. • **Pause** – Pauses the video stream until restarted. • **Stop** – Stops the video from playing. • **Rewind** – Rewind to beginning of stream. • **Fast Forward** – Fast forward to end of stream. • **Full** – Selecting this icon changes the view to Full Screen. To exit full screen, press **Esc** on keyboard. You can also double-click on any video to go fullscreen and double-click again to close. • **Volume** – Use slider to adjust volume. • **Mute** – Click to mute volume. • **CC On/Off** – Turn closed captions on or off. • **Mark** – Use to bookmark a stream. This creates a playlist in MyMedia with one bookmark. Press **Mark** again *only* if you want to create another bookmark to the same stream. • **Thumbnails** – **Create** thumbnails or **Upload** images. • **Launch External Player** – Launches the player in another browser window along with the control buttons. Once the window is launched, subsequent selections will play in the external player. The launched window can be moved or resized. Closing the main ETV Portal Server window leaves the smaller player on the screen. The viewer may be resized after launch by dragging from the corners or from any side.
Messages	The **Messages** area under the control panel displays any Global Message entered by the administrator; it will also display additional information about the selected video if it was customized by an administrator. The video title is shown above the Preview Window.

Customizing Stored Videos

Users (*with Content Publishing permission*) and administrators can customize or delete stored videos; they can change the name, the folder, keywords, etc. All stored videos have an **Info** hyperlink button that displays additional information (if available) about the video. For example it may have a description or keywords that can be used for searching, as well as links to external web sites and desktop files. (You must have the appropriate application installed locally; for example, you need PowerPoint to open a PowerPoint presentation.)

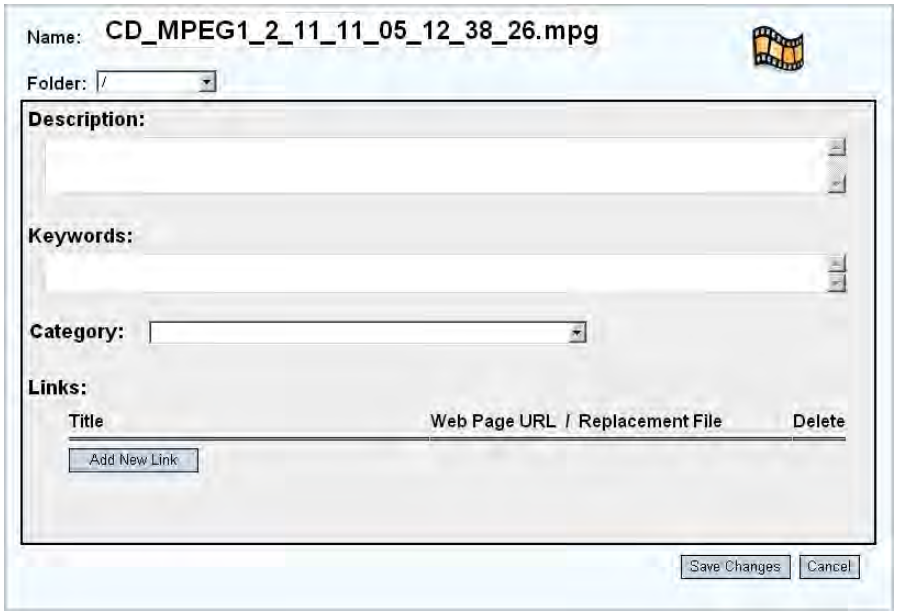
Note Note that some early NXG 7.0.1 servers do not support name or folder changes and will return a validation error if you try to make changes.

▼ To delete a stored video:

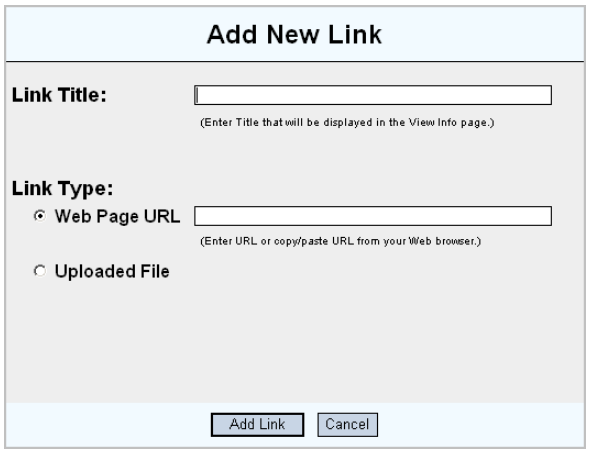
1. Click on the **Info** button to the right of any stored video.
2. Click **Delete Video** and confirm. This will permanently remove the video from the Portal Server.

▼ To customize a stored video:

1. Click on the **Info** button to the right of any stored video.
2. Click **Modify Info** to display the customization page.



3. Change the **Name**, or **Folder**, and add a **Description** and **Keywords** as appropriate. For video **Name**, use any combination of alphanumeric characters and the following special characters `. ! ~ / ( ) _ -`
4. Click **Add New link** to create a link to a web page or a file.
   a. Enter a **Link Title** and **Link Type**.
   b. Click **Add Link** when done. Repeat as many times as necessary.



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Link Title	The title actually displayed on the Info page, for example "Click Here for More Information."
Link Type	• Web page URL – Enter a valid URL or copy and paste one from your web browser. • Uploaded File – Browse to select an upload file. This can be a PowerPoint, an image, or any file you want to make available to end users.

Creating Thumbnails

You can create thumbnails for all videos stored in the Asset Library that were recorded on the Portal Server. If given publishing permissions, you can replace the generic video clip icon with a snapshot of the video or with any .jpg or .gif image you choose. The folders to which you can upload thumbnails are configured by an ETV Portal Server administer. (Note that thumbnail images that exceed 512 K in size are not displayed in the VOD list on an IP Receiver; a special icon is used instead).

▼ To create a thumbnail:

1. Launch a stored video and click **Create** on the **Thumbnails** menu at anytime to capture the first frame in the video. This will automatically replace the existing thumbnail if any.
2. Repeat until you are satisfied or mouseover the title and click **Remove Thumbnail** to replace the thumbnail with the standard icon.

▼ To upload your own thumbnail image:

1. Launch a video and select **Upload**.
2. Browse to the jpg or gif image and click **Upload Image**.
3. Click **Upload** again to close the window.

Note When creating an MPEG-4 thumbnail on a Macintosh, the thumbnail will always be the first frame—even if you take a snapshot in the middle of the video.

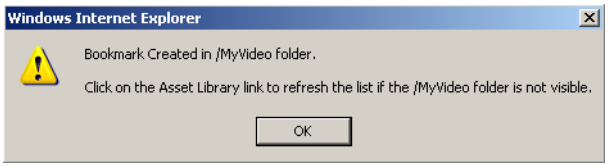
Creating Bookmarks

You can quickly bookmark any location in a stream playing in the preview window using the **Mark** button. This basically creates a playlist in MyMedia with one bookmark. To add additional streams or perform other editing functions, open this bookmark from the **Playlists** page.

▼ To bookmark any point in a stream playing in the preview window:

1. Launch any video from the **Asset Library**.
2. Click the **Mark** button at any point in the video. This displays a message and creates a bookmark/playlist in the MyMedia folder. The bookmark defaults to the end of the file and has the following format:

   <video_title><date><time>, for example: VBrick Rules_09_14_2007_13_27:59



3. To edit the playlist, go to MyMedia, mouseover the playlist you just created, and click **Edit Playlist**.
4. You can change the name, folder, duration, etc. using the editing options explained below.

Note Use the **Mark** button to bookmark a stream. This creates a playlist in MyMedia with one bookmark. To add additional streams, open this bookmark from the **Playlists** page. Press **Mark** again *only* if you want to create another bookmark to the same video file. For more about playlists, see Playlists on page 23.

Viewing Closed Captions

The ETV Portal Server supports closed captions. Captions can be turned on or off for hearing-impaired individuals. If a video stream (either live or stored) *is encoded* with captions, they can be set to on or off; if a video stream *is not encoded* with captions, captions will not be displayed regardless of the setting. If set to **ON**, captions are displayed for all caption-enabled streams subsequently launched from the Portal Server, until turned **OFF**. A video stream must be encoded with captions in advance. VBrick can add a date/time stamp to a live stream from a security camera, for example, but it provides no other functionality to encode live or stored video with closed captions. *Note that the Portal Server supports closed captions for MPEG-4 live and stored content only if the content is recorded with closed captioning and stored on a VOD-W*

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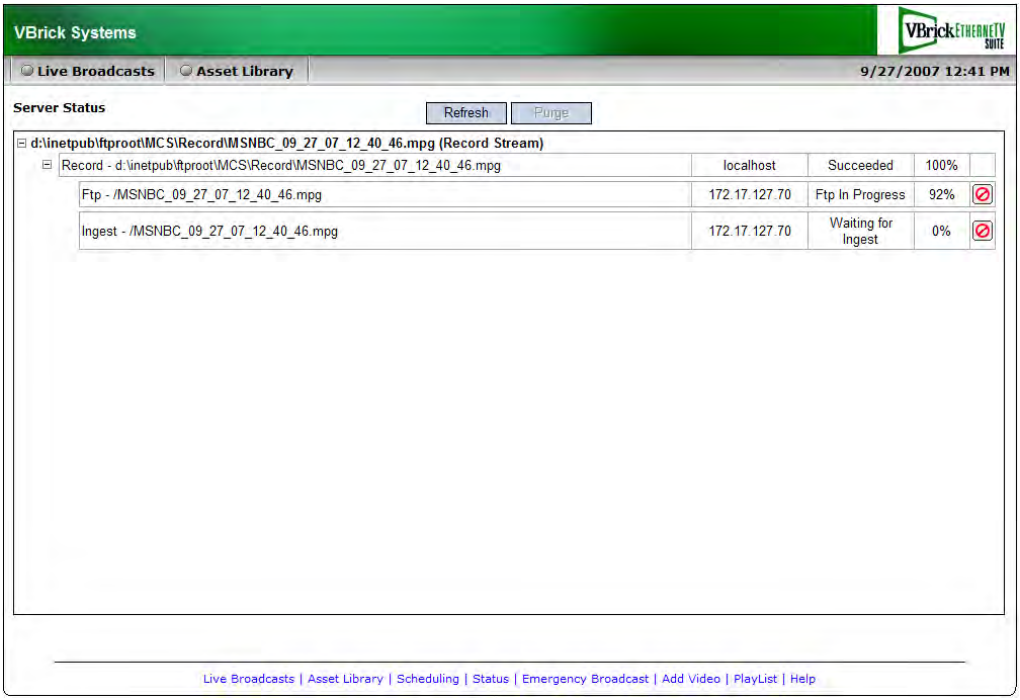
server. For all other content, the closed captions are superimposed on the video as shown here. The actual placement of the closed captions will vary depending on encoding options.

Scheduling

The **Scheduling** page let you create (or view) a schedule of future VBrick events. These include scheduled broadcasts (of live or stored video), video conferences, auto-recording of future broadcasts, and the execution of previously defined scripts. You set all configuration parameters in advance and the scheduled event will occur without further intervention, assuming that all devices and streams are available at runtime. See Using the Scheduler on page 29 for a complete description of this feature.

Status

This window shows the status of videos being added to the Video on Demand server or of any recordings in progress. Use **Refresh** to update the screen or **Purge** to remove all entries. Click the Cancel icon to the left of each to cancel a recording or ingestion in progress. *This also cancels the recording on the Live Broadcasts page.*



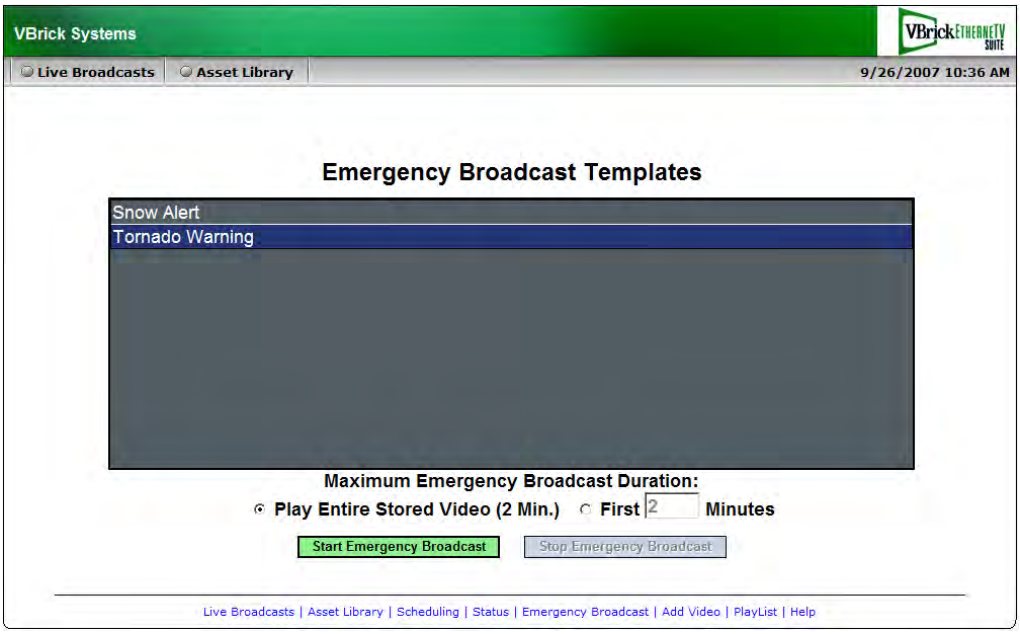
Priority Alert

A priority alert can be launched by any ETV Portal Server user with appropriate permissions. It broadcasts a live or stored priority alert to specified VBricks or IPRs in case of an emergency. The broadcast is launched instantly, for a specified duration, and preempts all other broadcasts. (Any schedules whose start times occur during a priority alert are discarded.) It is not subject to copyright restrictions or expiration dates. When done (or manually stopped) all preempted schedules automatically resume. Priority alert templates are pre-defined in advance by administrators as explained in the *ETV Portal Server Admin Guide*.

Note Priority alert streams are shown only on monitors or TVs attached to VBricks and IPRs respectively. *They are not shown on the Portal Server user interface.* If you are watching a stream in the embedded player on the user interface browser, you will not see a priority alert (except as selectable live stream).

▼ To launch a priority alert:

1. Click **Priority Alert** on the navigation bar.



2. Click a previously-defined template name.
3. Set the broadcast **Duration** in minutes (or click **No Limit (Stop Manually)**.
4. Click **Start Priority Alert** and confirm. (A message will indicate the broadcast is in progress. Any streams currently in progress will be preempted and replaced by the priority alert.) If necessary, click **Stop Priority Alert** when done.

Template Name	Pre-defined template created by an administrator.
Maximum Duration	Maximum duration in minutes after which the broadcast will automatically stop.
No Limit (Stop Manually)	Broadcast will run indefinitely until manually stopped.
Start Priority Alert	Launch priority alert.

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Stop Priority Alert	Stop priority alert.

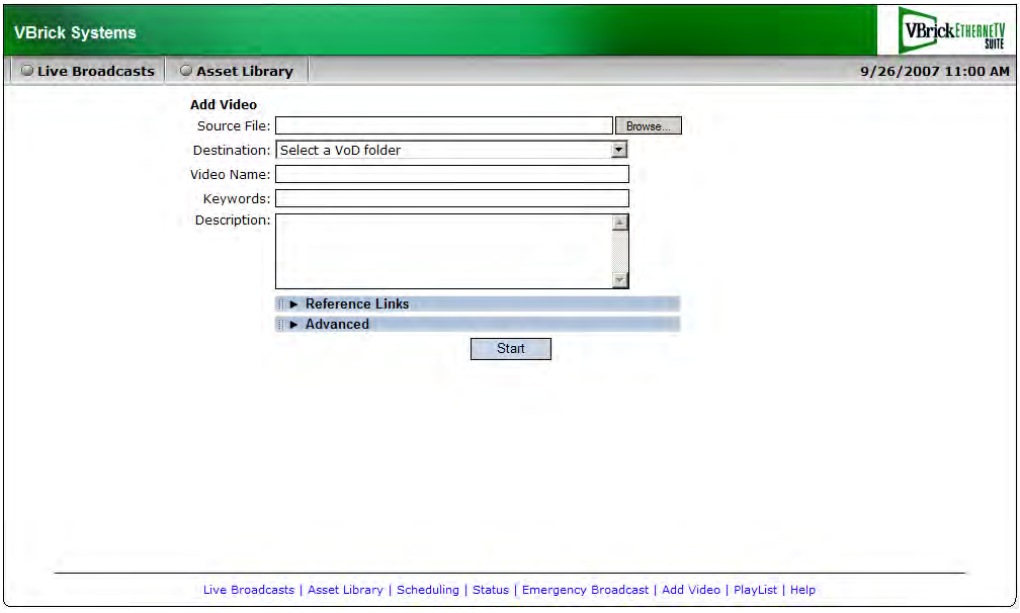
Add Video

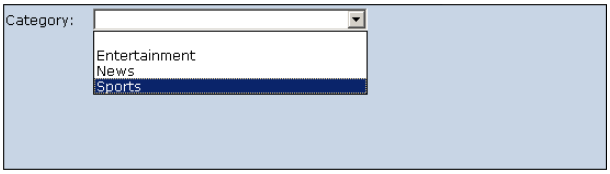
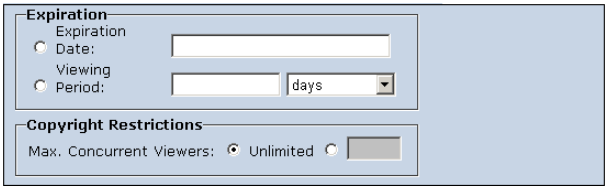
If given publishing permissions, you have the ability to **Add Video** to any VOD servers for which you have access. The folders to which you can add video are configured by your system administrator. The folder list that you can add video *to* may also be different from the folders that you can view content *from*. If you have MPEG, WM, or H.264 video content saved on your PC, you can publish this content to the VOD server(s) using the **Add Video** page. Content acquired by recording with VBrick StreamPlayer Plus or a VBrick VBStar will always ingest and play at a consistent high quality; content acquired from third-party vendors or elsewhere may not. See Supported Stream Types below for more details.

Note MPEG-4 files with closed captions cannot be added to the EtherneTV-NXG Video-on-Demand server until the closed caption track is removed. See "Removing MPEG-4 Closed Captions" in the *ETV Portal Server Admin Guide* for details.

▼ To add a video:

1. Click **Add Video** on the navigation bar.
2. Browse to a **Source File** for the video content.
3. Select a **Destination** folder. You can add the video to any folder shown in the dropdown list.
4. Enter a required **Name** (with file extension for WM files) and optional **Keyword** and **Description**. (The name will be shown on the **Asset Library** page; the keyword and description will be shown on the **Info** page.)
5. Optional. Complete **Additional Info**, **Reference Links**, and **Advanced** as explained below.
6. Click **Start** to begin ingestion to the selected folder. This may take several minutes depending on the size of the file. Click **Status** on the navigation bar to see the status of the ingestion. When done, the video will be added to the **Asset Library** in the folder you selected.



Source File	Browse to the folder on your PC or a network drive that have the video you wish to add.
Destination	Choose a folder you would like to publish the video to. Only the folders you have permission to publish to will be shown in the dropdown list.
Video Name	Enter the name you want displayed on the ETV Portal Server interface. If adding Windows Media files, you must include the file extension; valid file extensions are .asf, .wmv, .wma, .mp3, and .wsx. Use any combination of alphanumeric characters and the following special characters . ! ~ / ( ) _ -
Keywords	Assign keywords that can be used to search for the video later.
Description	Define a brief description of the video. This is displayed in the messages area of the user interface when the video is played.
Additional Info	*A window similar to this is shown only if an administrator has added Custom Field(s).* It can be used to provide additional descriptive information about a video. 
Reference Links	Use this window to add or delete related web page links on the Info page associated with a video.
Advanced	*Shown only if you have Expiration Privileges.* Use to set expiration date, viewing period, and copyright restrictions. • Expiration – content will expire after the Expiration Date or the Viewing Period, depending on which radio button you select. • Copyright Restrictions – Use to set the maximum number of concurrent viewers. This overrides the default Global Setting. 

Supported Stream Types

You can add any of the video types shown below in Table 4. Note that the Portal Server supports MPEG-2 video delivered as a transport stream only. It does not support video

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delivered as a program stream. If your MPEG-2 content fails to ingest and play (and you have the right permissions), it may be a program stream. Try running it in StreamPlayer. If it does not run in StreamPlayer, it is likely a program stream in which case you can either re-stream the video and record it as a new file, or you can use third-party tools to transcode it.

Table 4. Supported Stream Types

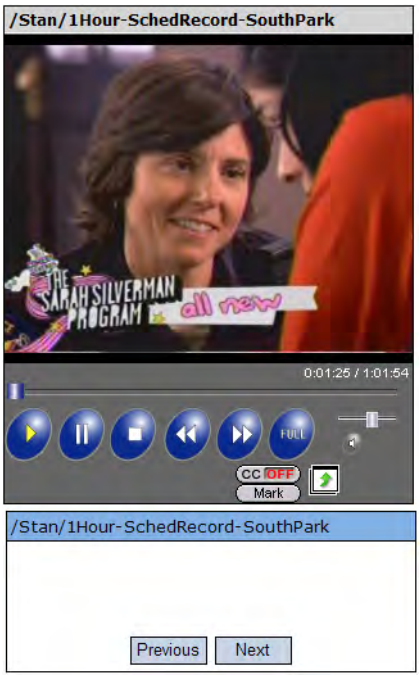
Video Type	Supported Stream Type
MPEG-1	Any stream type.
MPEG-2	Transport streams only.
MPEG-4	Most stream types. All ISMA-compliant streams.
WM	Any stream type including .asf, .wmv, .wma, .mp3, and .wsx.
H.264	Most stream types. All ISMA-compliant streams.

Playlists

Playlists are saved in the **Asset Library**. A playlist is a mechanism to consolidate multiple video files, or video file segments, regardless of format, into a *virtual* file. A playlist is a list of video streams, or parts of streams, that can be played as if they were a single video file. Playlists can include files encoded in different formats and at different bit rates including MPEG, WM (Windows Media), and H.264. Playlists have a special icon and are only created from stored streams. They are not available with live streams and they are not available when multiple windows are displayed. (Playlists and bookmarks are supported on WM IP Receivers; they are not supported on Digital IP Receivers or Amino set top boxes.)

You create a playlist from the **Playlists** page and they can be saved under any name and played back later. They can also be modified, re-ordered, or changed in a variety of ways as explained below. Playlists can only be played in realtime. They cannot be scheduled in the Portal Server to run at a later time. Bookmarks are slightly different. A bookmark is simply a pointer to a specific location in a file or to an entire file. In general, you can think of a bookmark as a playlist with a pointer to one segment in a video. You create bookmarks using the **Mark** button in the preview window. For more information, see Creating Bookmarks on page 17. Note that if the computer you are using to access a playlist does not support a certain encoding type, a bookmark to that item in the playlist will not be displayed.

Playlists are saved by default in the MyMedia folder. A MyMedia folder is automatically created for each defined user and is available and viewable only to the user who is currently logged in. If Access Control is enabled, each user has their own MyMedia folder which no one else can access. If Access Control is not enabled, *everyone's* playlists are stored in MyMedia.



▼ To run an existing playlist:

1. Click on the **Asset Library** and navigate to the MyMedia folder or to any folder that has a playlist.
2. Click on any item with a playlist icon to launch the playlist in the preview window.
3. Use the **Previous** and **Next** buttons to move up and down the playlist. (Use the **Forward** and **Rewind** buttons to navigate to the beginning or end of the clip in progress—not to the beginning or end of the playlist.)

There may be a slight delay between clips—this is normal Portal Server behavior as the video loads. If any content in a playlist is unavailable for any reason (for example the file was moved or the content expired), the Portal Server will skip that clip, advance to the next clip, and display an informational message. below the preview window. As explained below, there are two ways to create playlists. You can quickly bookmark a stream playing in the preview window using the **Mark** button; this creates a playlist with one bookmark. You can also create a playlist from the **Playlists** page. This is the standard way to create a playlist.

Creating Playlists

▼ To create a playlist from the **Playlists** page:

1. Click **Playlists** on the navigation bar at the bottom of the page.
2. Mouseover any video from the folders you have permission to access and select **Add to Playlist**. This adds the selected stream to the new playlist. By default, it starts at the beginning of the file and ends at the end of the file.
3. Repeat for each stream you wish to add.
4. Edit the start and end times or reorder the playlist as necessary. Mouseover any item in current playlist to see editing options (Up, Down Start, etc.). See Editing Playlists below for more details.
5. Enter a title for the playlist and select a folder where it will be stored (the default is the MyMedia folder of the user who logged in.) Note that o*nly those folders for which you have "publish" access are displayed.*

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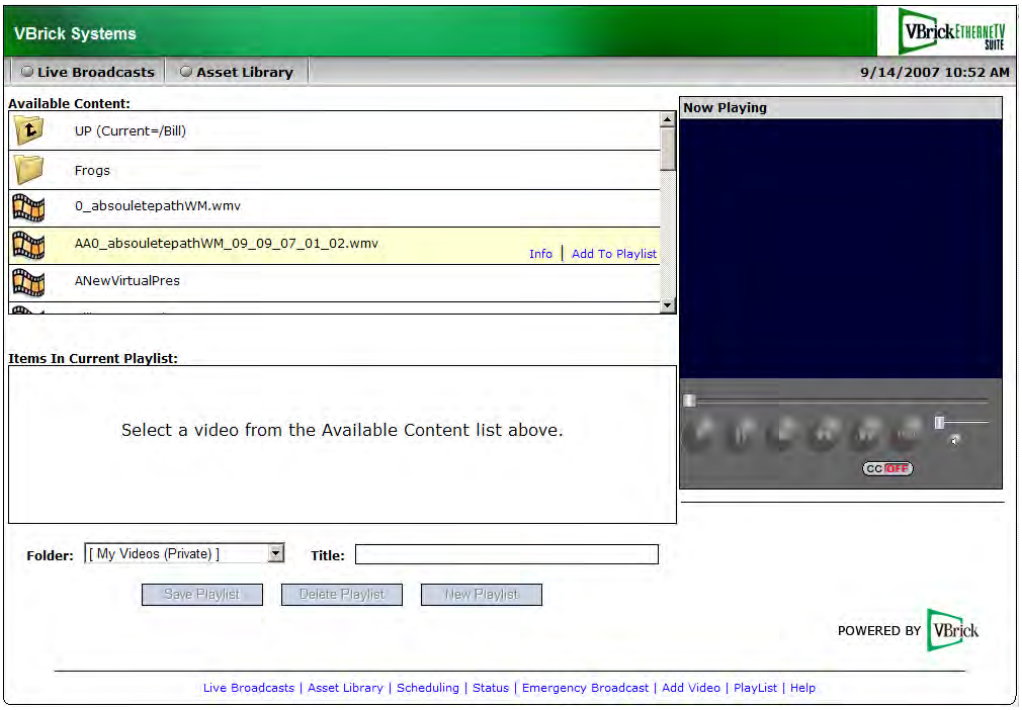
6. Click **Save Playlist** and you are done.

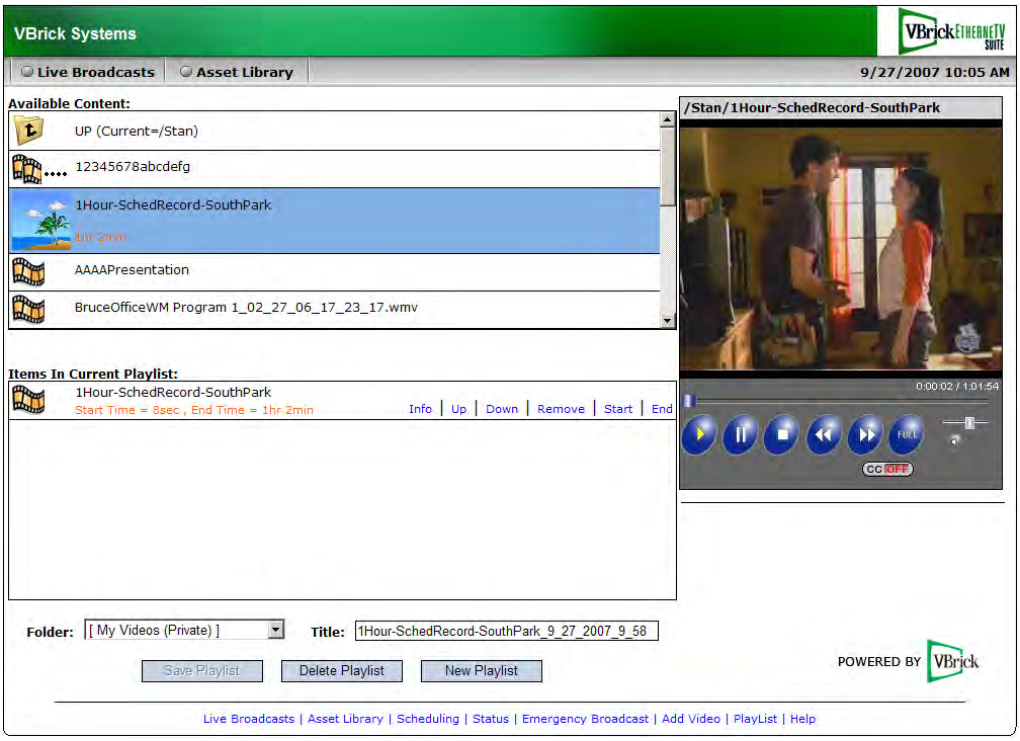


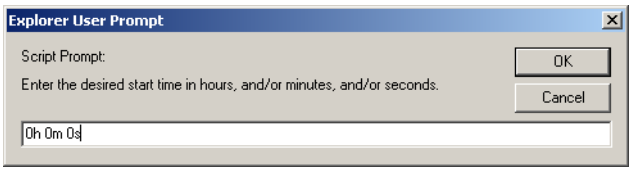
Note You may have folders without content but they are not displayed in the **Asset Library**. Playlists without content, however, are not allowed. You cannot create a playlist without *first* selecting content.

Editing Playlists

To edit an existing playlist:

1. Navigate to any existing playlist (or bookmark). Playlists have a special icon.
2. Mouseover any playlist and click **Edit Playlist**.
3. Use any of the functionality explained below (**Up**, **Down**, **Remove**, etc.) to modify the playlist. You can also change the **Title** or **Folder** location.
4. To add additional items to a playlist, mouseover any file in the **Available Content** list and click **Add to Playlist.**



Info	Each playlist has its own searchable metadata. You can add/change the name, the folder, keywords, etc. For example you can add a description or keywords that can be used for searching, as well as links to external web sites and desktop files. See Customizing Stored Videos on page 15.
Up	Move clip up one position in playlist.
Down	Move clip down one position in playlist.
Remove	Use to delete individual clips from the playlist. If the deleted clip is the last item in the playlist, the playlist itself will be removed.
Start †	Sets the bookmark start time (default = beginning of file). There are two ways to set Start time. (1) Launch the clip in the preview window and click Start at the point where the clip will start. Use the Forward/ Rewind buttons to advance through the video as necessary. (2) Mouseover and click Start without launching the clip and use the popup to enter Start time in exact format shown, for example `0h 23m 57s` 

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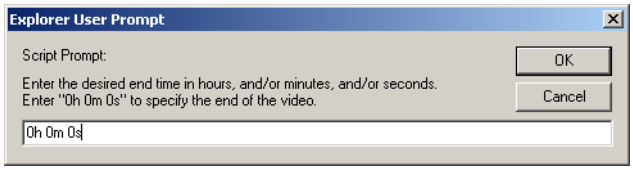
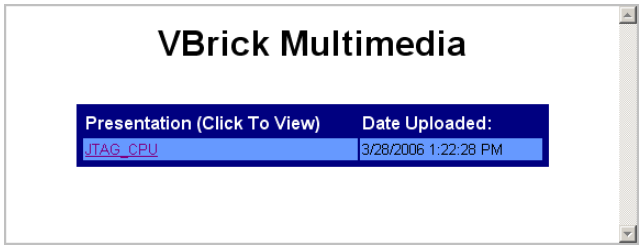
End †	Sets the bookmark end time (default = end of file). There are two ways to set End time. (1) Launch the clip in the preview window and click End at the point where the clip will end. Use the Forward/ Rewind buttons to advance through the video as necessary. (2) Mouseover and click End without launching the clip and use the popup to enter End time in exact format shown, for example `0h 23m 57s` 

† With Internet Explorer, this popup window will not function properly unless the Portal Server host name or IP address has been added to the list of trusted websites.

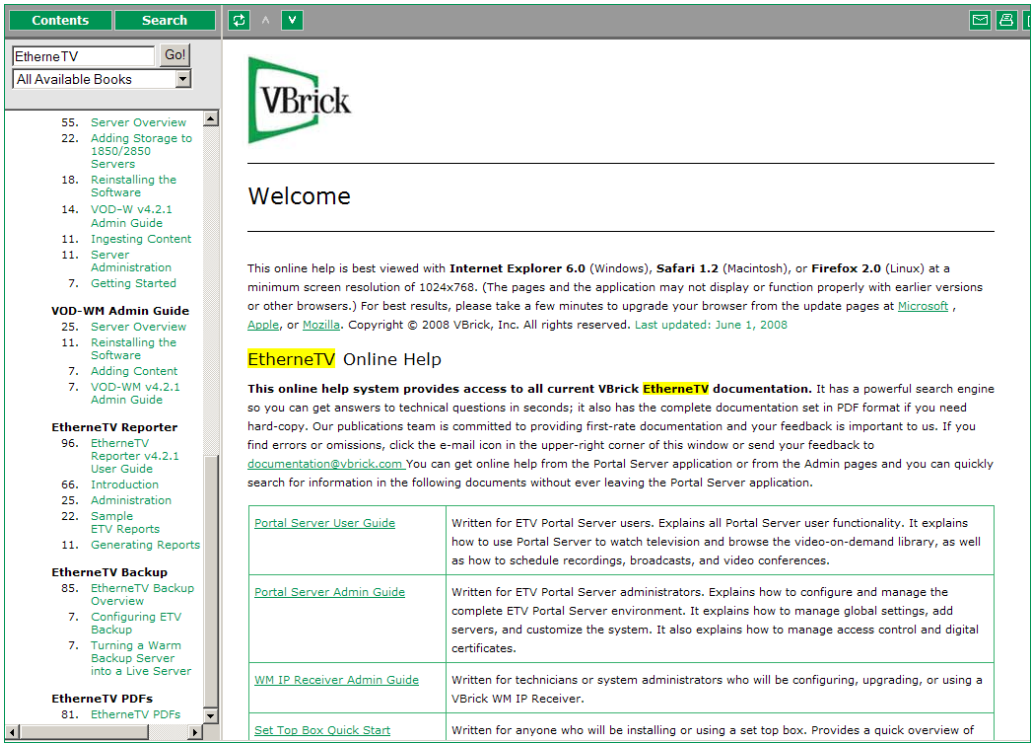
Presentations

This launches a page (see below) from which you can access legacy rich media presentations that were published to an earlier version of the Portal Server. *If you have no have legacy presentations, this hyperlink is not shown on the navigation bar.* Live or recently published presentations, are available on the **Live Broadcasts** and **Asset Library** pages.



Help

This command launches an online version of the *Portal Server User Guide* in a new window. This online help system provide fast full-text search and makes it easy to find the information you need. To navigate in the help window, use the tree controls on the left to expand a topic and the navigation buttons at the top to move to a different page. See Getting Help on page v for more information.



Logout

This command logs you out of the application and lets you log back in as a different user. This may be necessary to gain access to certain functionality. For example, some users may not be allowed to create thumbnails and you may want to login as a user who has the permissions to do this. The **Logout** hyperlink is only shown when Access Control is enabled by an administrator.

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Chapter 3

Using the Scheduler

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Stored Broadcast 38
Conference 40
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Introduction

The **Scheduling** page lets you create (or view) a schedule for future VBrick events. These include scheduled broadcasts of live or stored video, video conferences, and the execution of previously defined scripts. You set all configuration parameters in advance and the scheduled event will occur without further intervention, assuming that all devices and streams are available at runtime. The initial steps required to create a scheduled program are described below followed by a detailed explanation of each schedule type (for example, live broadcast, video conference, etc.).

In order to schedule an event, you must have the appropriate permissions enabled by an ETV Portal Server administrator. You may have full permissions, partial permissions (with no access to **Advanced Settings**) or no privileges at all in which case you will not see the **Add** button on the **Scheduling** page. To modify or delete a scheduled event, including one that's running, click on the event on the calendar page, then click **Modify** or **Delete**.

When using the Scheduler, be aware that all VBrick encoder/decoder resources must be available at the date and time of the scheduled event. When creating a schedule, the ETV Portal Server verifies that the resources are currently present on the network but there is no way to determine if these resources will still be available at runtime. If there is a subsequent resource conflict, for example if a VBrick is not available (or the hard drive on a VBStar is full), the encoder/decoders will not connect for the scheduled event and there will be no video between the devices. When this happens, an error message, for example `172.16.127.29:Failed to Set` will be displayed in the Portal Server Status log window. Similar problems will occur if the ETV Portal Server and VOD server clocks are not synchronized.

Note When navigating in the Scheduler, use the **Next** and **Back** buttons in the application. Do not use the navigation controls in your browser or you may get unpredictable results.

Schedule Privileges

As shown below, Portal Server users may have limited schedule privileges in which case their ability to create or modify schedules is restricted. For example, anyone can view a schedule on the calendar page but users with "partial" privileges, for example, will only be able to drill down and modify a schedule they "own" (i.e. one they created). Mouseover any scheduled event on the calendar page to view the owner.

Table 5. Schedule Privileges

User	Privileges
Super	Create/modify/delete all schedules and access all features.
Full	Create/modify/delete owned schedules.
Partial	Create/modify/delete owned schedules; no Advanced Settings.
None	No schedule privileges; no Add button shown on Scheduling page.

Viewing the Schedule

Anyone can view scheduled events but only those users who have been granted permissions can actually "schedule" an event. The following window shows a **Month** view (with several events scheduled) for a user who *does not* have schedule permissions (there is no **Add** button). Mouseover a scheduled event as shown below to see schedule details. The schedule details include the dates, recurrence pattern, and owner.

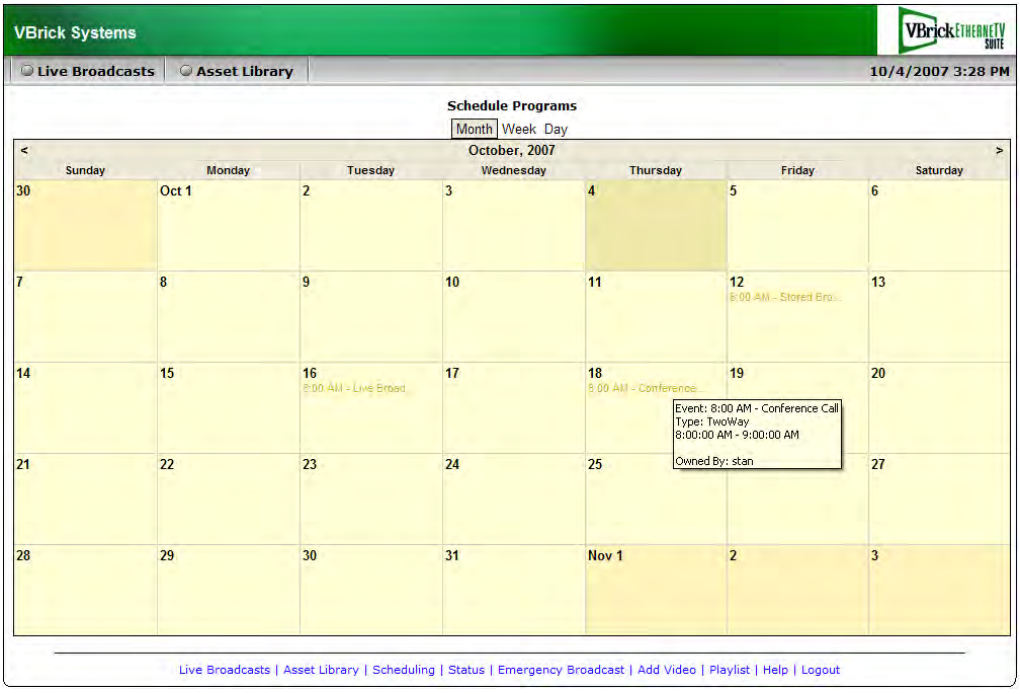

Figure 4. Scheduling Page *without* Add Permissions

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Scheduling an Event

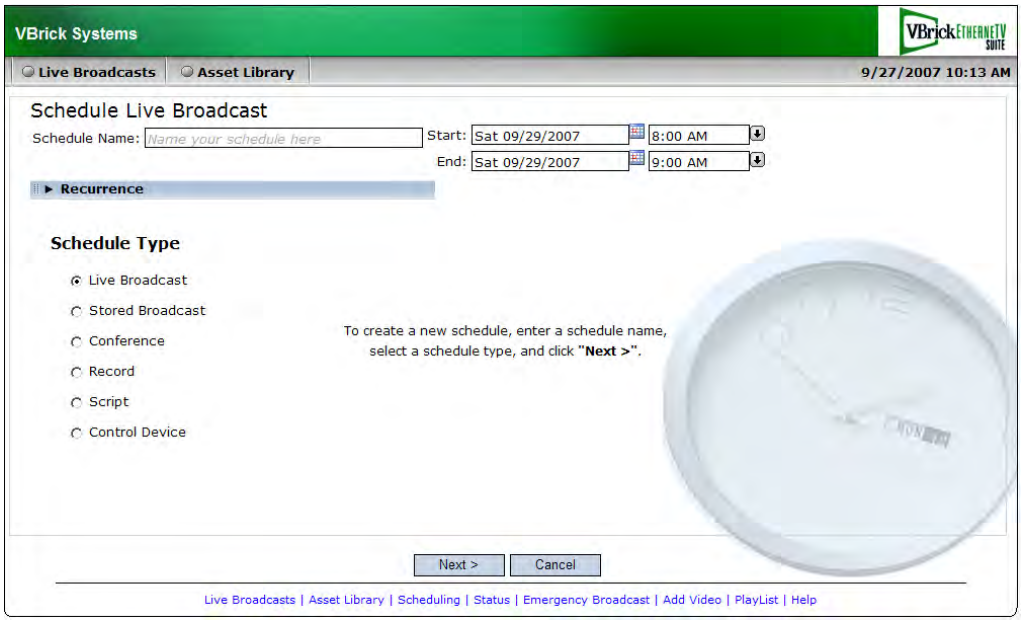
The available content for creating a scheduled program include live streams from a VBrick encoder or stored files on an VOD server (or a VBStar). You can access the **Scheduling** page from anywhere in the application. Any scheduled programs currently in progress will display a TV icon and can be launched by clicking the icon or from the **Live Broadcasts** page. (They can also be viewed from a PC if VBrick's StreamPlayer is installed) *The first steps in creating a schedule are the same for all types of schedules.*

▼ To schedule an event

1. Click **Scheduling** on the Portal Server home page to display the "calendar" page shown below. This pages uses special icons to indicate recurring events or events currently in progress. Switch to the view (**Month**, **Week**, **Day**) you prefer. (The **Month** view is shown here.)

Figure 5. Scheduling Page *with* Add Permissions

2. Click **Add** on the date of the scheduled event to display the **Schedule Live Broadcast** page. (In **Day** view, you *must* click on a specific hour.)



3. Enter a **Schedule Name** and complete the **Start** and **End** fields. (To avoid format errors, click in the date and time fields and use the calendar and dropdown list respectively.) Depending on the view you selected above, these fields may be pre-filled.

Schedule Name	Alphanumeric, no special characters, must be unique. Maximum 128 characters.
Start	Use the calendar and the dropdown menu respectively to select start date and time.
End	Use the calendar and the dropdown menu respectively to select start date and time.

Recurrence

4. Create a **Recurrence** schedule if appropriate. This feature uses an intuitive interface that makes it easy to schedule recurring events. If a **Recurrence** schedule is in effect, the **Remove Recurrence** button will be displayed at the bottom of the window (and a recurrence icon will be shown on the "calendar" page).

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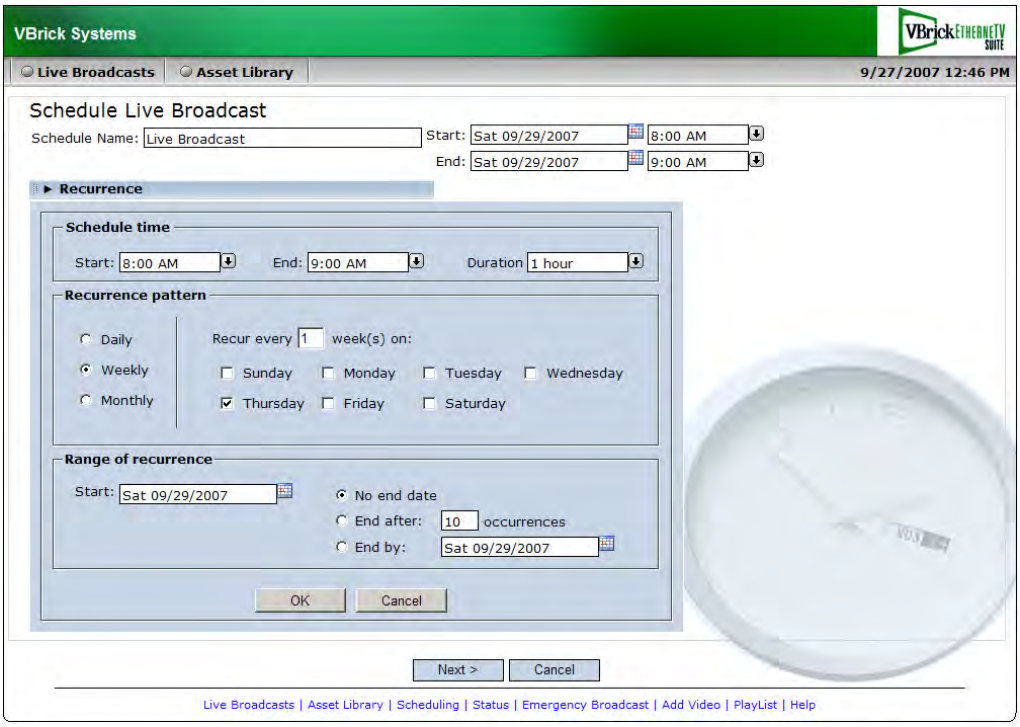

Schedule time	Set start, end, and duration. Duration cannot exceed 24 hours.
Recurrence pattern	Use the radio buttons and check boxes to set a Daily, Weekly, or Monthly recurrence pattern. A recurring event is shown on the scheduler with a special icon.
Range of recurrence	Describe the start and end of the range. End can be none, number of occurrences, or a specific date.

5. Select a **Schedule Type**.

   Each schedule type has a different wizard as explained on the following pages but basically, you select the source and destination targets (for live and stored broadcasts), the VBricks (for a video conference), the live program you will record, or the script or control device you will manipulate. Go to the appropriate section below depending on the **Schedule Type** you select.

Schedule Type	• Live Broadcast – Broadcast a live channel. • Stored Broadcast – Broadcast a stored video. • Conference – Set up a video conference. • Record – Schedule and save a recording. • Script – Schedule a script to run on a device. • Control Device – Schedule and manipulate an external device.

6. Configure **Advanced Settings** for VBricks as necessary (see Advanced Settings below).
7. Click **Next** to page through each wizard. Click **Finish** when done.
8. Verify the information and click **Create Schedule** when prompted (see Create Schedule below). If you need to make changes, click **Modify** and adjust the schedule as necessary.

When done, the named schedule is added to the calendar page of scheduled events. Any scheduled links use color-coded text as shown in Table 6.

Table 6. Color-coded Scheduled Events

Text Color	Description
Red	Expired. The scheduled event is over.
Yellow	Future. The scheduled event will occur in the future.
Green	Active. The scheduled event is currently in progress. If the event is viewable (for example a stored video), a TV icon is displayed and you can click on it to launch the stream.

Advanced Settings

Advanced Settings are available to configure VBricks and IPRs with exceptional configuration parameters—often with help from VBrick Support Services. It is unlikely you will ever need to change these settings. *In all cases you can safely ignore these settings and use the defaults provided by the Portal Server.* The available settings depend on the device characteristics. For example, the following window shows advanced settings for an MPEG-4 encoder. See the *VB4000-5000-6000 Admin Guide* for more about these device settings.

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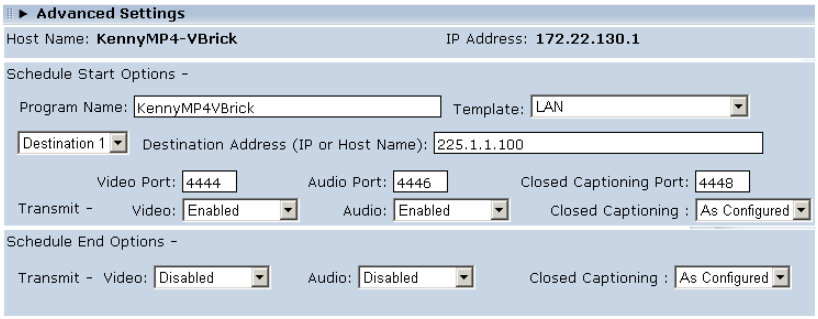
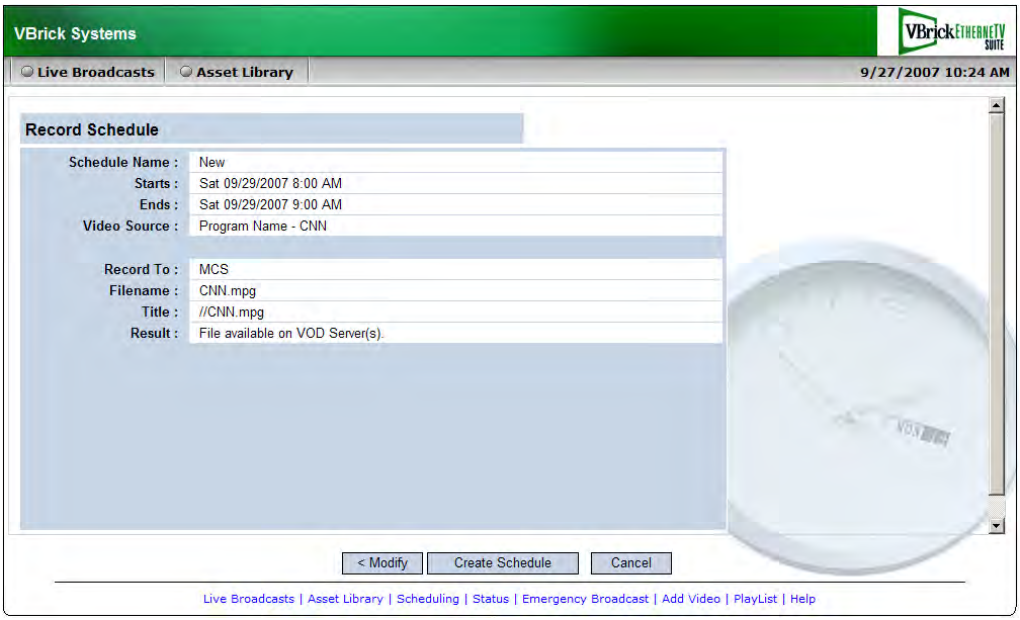


Create Schedule

The final step in creating a schedule is to review and confirm the settings. If you are satisfied with the schedule and/or the recurrence pattern, click **Create Schedule**. If not click **Modify** and change the settings as necessary. Note that if you schedule a recording with a recurrence pattern, the filenames shown on the following window are automatically appended with the date and time, for example: filename>d>t.mp4



Delete Schedule

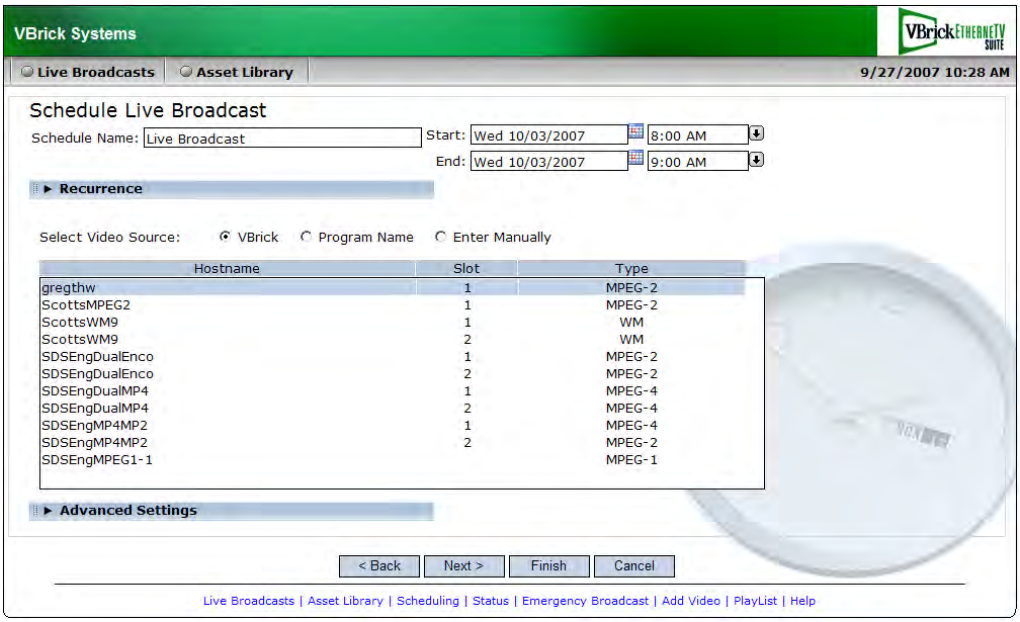
To delete a schedule, simply click on the scheduled event and click **Delete**. This removes the schedule and all future recurrences. To change a schedule without deleting it, open the schedule, click **Modify**, and page back to the item you want to change—then page forward to **Finish**. In this manner you can change the devices, recurrence pattern, or other details in a schedule without deleting the schedule and starting from scratch.

Live Broadcast

Use these steps to create a schedule for a live broadcast. This means that at the scheduled date and time a live stream will be added to the **Live broadcasts** page and be available to authorized users for viewing.

▼ To schedule a live broadcast

1. Select a schedule name, dates, and (optionally) recurrence pattern (see Scheduling an Event).
2. For **Schedule Type**, select **Live Broadcast** and click **Next**.



3. In **Select Video Source**, choose one of the following and click **Next**.

VBrick	Select a live stream by VBrick name.
Program Name	Select a live stream by Program Name from all available.
Enter Manually	Enter an appliance source.

▼ To use a **VBrick** as the **Video Source**:

1. Select **VBrick** as the **Video Source**.
2. Select one VBrick by **Hostname** and click **Next** (or **Finish** if no destinations are to be specified).
3. Select one or more destination **VBrick(s)** or **IPR(s)** that will receive the video and click **Finish**.
4. Verify the information and click **Create Schedule** to add the new schedule to the calendar.

Note If you create a "server" schedule whereby a unicast stream is pulled from a WM server (this means the **Destination** is **Server** rather than **Multicast**), the scheduled event cannot be launched from the Schedule page and will not display a TV icon. To launch this stream, you must know the IP address of the VBrick resource, or an administrator can add a URL for a live stream as explained in the *Portal Server Admin Guide*.

▼ To use a **Program Name** as the **Video Source**:

1. Select **Program Name** as the **Video Source**.
2. Select one **Program Name** and click **Next**.
3. Select the destination **VBrick(s)** or **IPR(s)** that will receive the video and click **Finish**.

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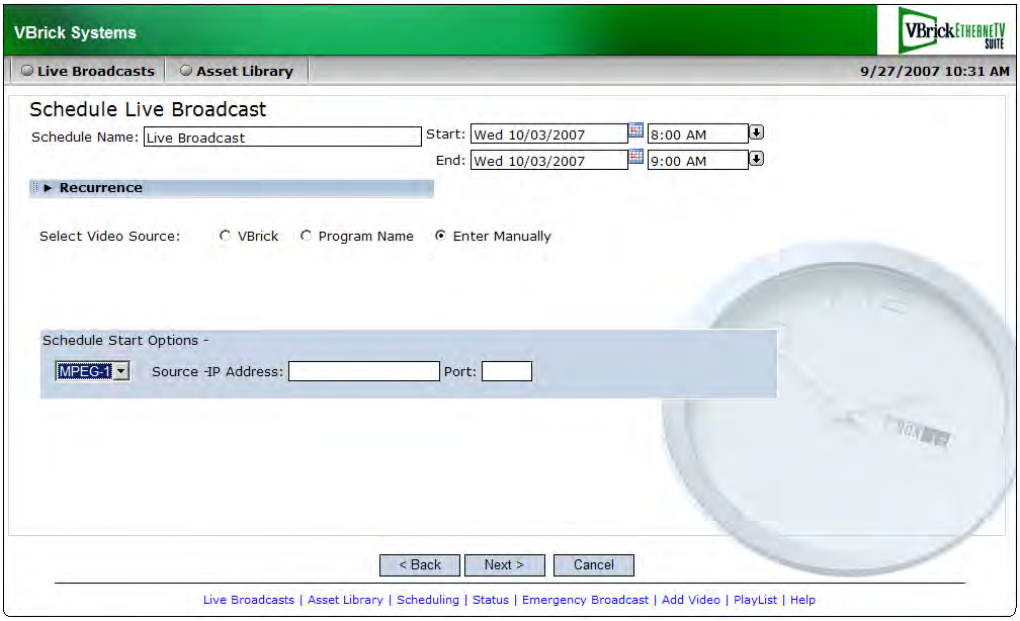
4. Verify the information and click **Create Schedule** to add the new schedule to the calendar.

▼ To use **Enter Manually** as the **Video Source**:

1. Select **Enter Manually** and click **Next**.



2. Enter the **Schedule Start Options** and click **Next**. The options vary as follows depending on the **Source** device type.

Source	Select one: MPEG-1, MPEG-2, MPEG-4, or WM.
Source IP Address	Destination multicast IP address that will receive the broadcast. Range 224.0.0.0–239.255.255.255.
Port	Destination port number that will receive the broadcast. Range 1040–65534.

Connection Mode (MPEG-4 only)	Enter the video source location to connect to using one of the following. No special characters are allowed. If you enter the IP Address or Hostname of a VBrick encoder managed by the Portal Server, the availability will be verified.
	• IP Address/Host Name – must include Slot number (if dual encoder/decoder) and Management Port.
	• URL – use `VBHTTP` or `RTSP` format. For example:
	`vbhttp://MPEG4Unit1/vbs1d1.sdp`
	`rtsp://172.2.3.4/vbrickvideo1`
	• SDP on Flash – read the onboard SDP file to make a connection. Enter the path to where file resides on the VBrick decoder (not in ETV Portal Server), for example: `vbs1d1.sdp`
	• Program Name – any valid Program Name that is available on the network (or one that will be available on the scheduled date and time).
	Use care when specifying the IP Address/Host Name or the URL Connection Mode and entering the host name of a VBrick encoder not managed by ETV Portal Server. These entries will not be accessible by IPRs (and in some cases by VBrick decoders either). Host names must be resolved at some point into IP Addresses and the processes that accomplish this may not always be available. When using IPRs or when Host Name resolution is questionable, use the specific device IP address.

3. Select the destination **VBrick(s)** or **IPR(s)** that will receive the video and click **Finish**.
4. Verify the information and click **Create Schedule** to add the new schedule to the calendar.

Stored Broadcast

Use these steps to create a schedule for broadcasting a stored video. This means that at the scheduled date and time a stored video from a VOD server or a VBStar (MPEG-2 or WM) will be added to the **Live Broadcasts** page and be available to authorized users for viewing. (You cannot schedule a broadcast of a video stored on a file server.)

▼ To schedule a stored broadcast

1. Select a schedule name, time, date, and (optionally) recurrence pattern (see Scheduling an Event).
2. For **Schedule Type**, select **Stored Broadcast** and click **Next**.

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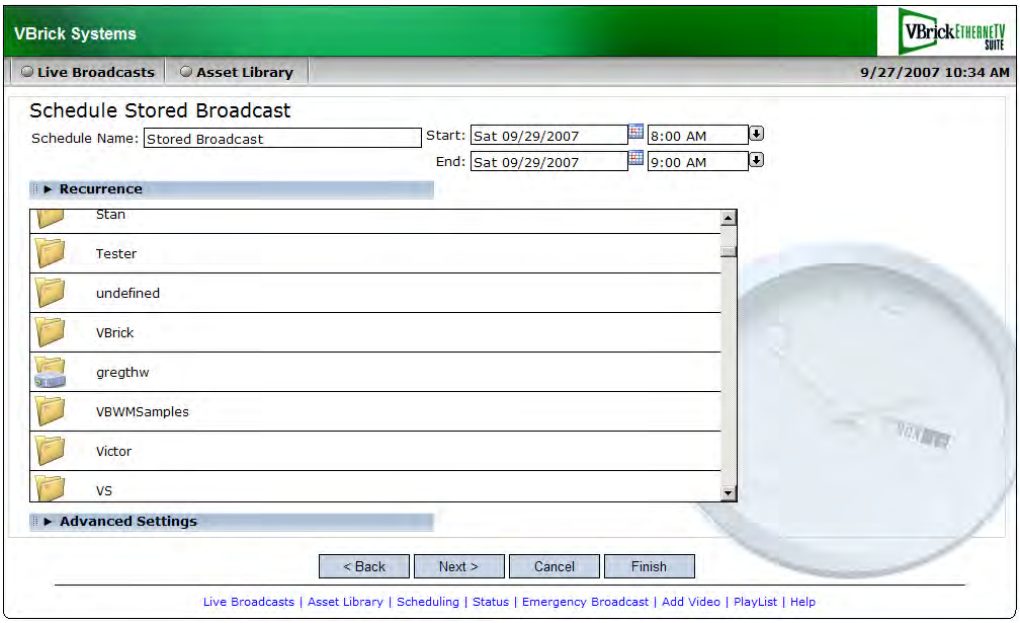


3. Select the source of the stored broadcast. It can be either a VBrick VBStar (with a hard drive) or a VOD server. Each has a different icon.

	This icon denotes a VOD Server with a specific IP address. Navigate through the file system to a source video on the VOD server.
	This icon denotes a named VBStar with a hard drive (MPEG-2 or Windows Media). Navigate through the file system to a source video on the VBStar.

▼ To use a stored video on a VOD server:

1. Select a server by IP address and navigate to a video that will be the source of the broadcast.
2. Select a video and click **Next** (or **Finish** if no destinations are to be specified). Do not use the same stored video for broadcasts that will run concurrently.
3. Select the destination VBricks or IPRs that will receive the video and click **Finish**.
4. Verify the information and click **Create Schedule** to add the new schedule to the calendar.

▼ To use a stored video on a VBStar:

1. Select a VBStar and navigate to a video that will be the source of the broadcast.
2. Select a video and click **Next**.
3. Select the destination VBricks or IPRs that will receive the video and click **Finish**.
4. Verify the information and click **Create Schedule** to add the new schedule to the calendar.

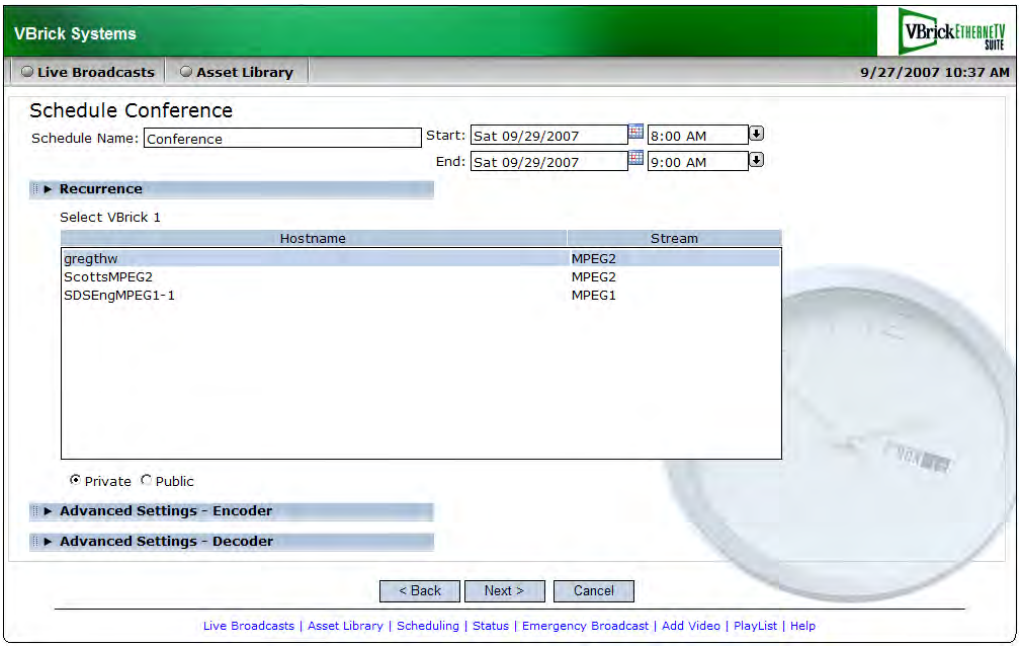
Note Be aware that regardless of how much time you scheduled for the video on the calendar, the time blocked out will automatically adjust to the actual length of the video.

Conference

Use these steps to create a video conference between two encoders/decoder pairs at different locations. This means that at the scheduled date and time a video conference will automatically be launched using two specified VBricks—one at each end.

▼ To schedule a video conference

1. Select a schedule name, dates, and (optionally) recurrence pattern (see Scheduling an Event).
2. For **Schedule Type**, select **Conference** and click **Next**.



3. Select **VBrick 1**, specify **Private** or **Public** and click **Next**.

VBrick 1	VBrick at one end of conference. For MPEG-4 RTSP conferencing, the RTSP ports must be set to 554 (the default) on each VBrick. In IWS, go to Configuration > System > Security > RTSP Server Port.
Private	Limited to the specified participants. Configure for Unicast using the Advanced Settings.
Public	Available to any participants. Configure for Multicast using the Advanced Settings.

Note **Advanced Settings** are available to configure encoders and decoders with exceptional configuration parameters. It is unlikely you will ever need to change these settings. In all cases you can safely ignore the **Advanced Settings** and use the defaults provided by the ETV Portal Server. See the *ETV Portal Server Admin Guide* for details.

4. Select **VBrick 2** and click **Finish**.
5. Verify the information and click **Create Schedule** to add the new schedule to the calendar.

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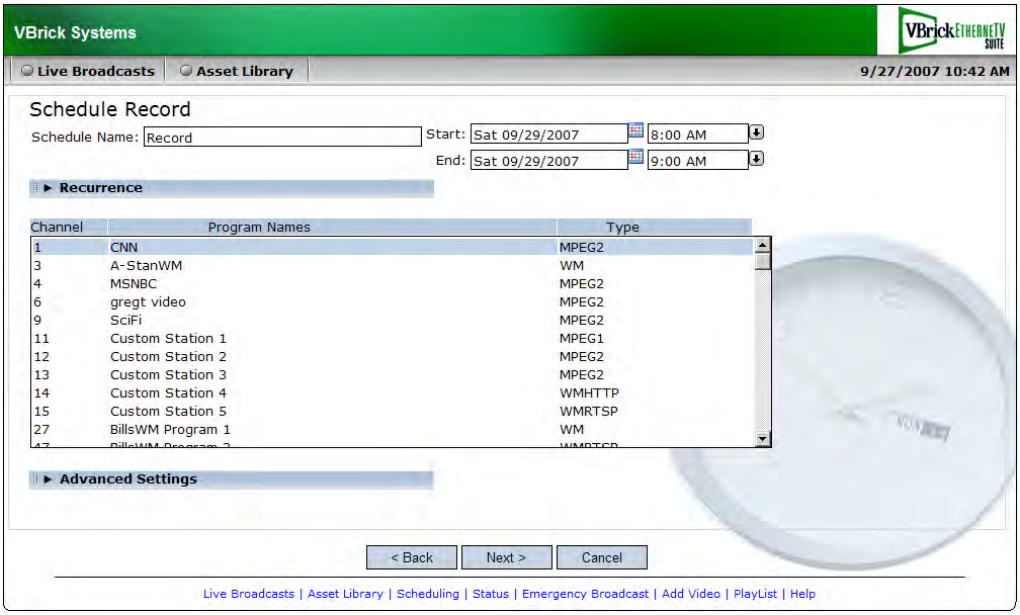
Record

Use these steps to create a schedule that will initiate the recording of live content. This means that at the scheduled date and time the live content will be recorded, optionally ingested and FTPed, and made available on the **Asset Library** page to authorized users for viewing.

▼ To schedule a recording

1. Select a schedule name, dates, and (optionally) recurrence pattern (see Scheduling an Event).
2. For **Schedule Type**, select **Record** and click **Next**.



3. Select a Program Name as a record source and click **Next**. (Alternately, click **Advanced Settings** and select **Manual Entry**. See Record by Manual Entry on page 45.)

Program Name	Select a live stream by Program Name from available live streams.
Manual Entry	• MPEG-1 – enter a Program Name, or IP Address and Port number. • MPEG-2 – enter a Program Name, or IP Address and Port number. • MPEG-4 – enter a Program Name, or URL. • WM – enter a Program Name or URL. • H.264 – enter a Program Name or URL.

Record by Program Name

When the **Record Source** is **Program Name**, you can **Record To** an NVR (Network Video Recorder) or to a VBrick as explained below.

▼ To use a **Program Name** as the record source

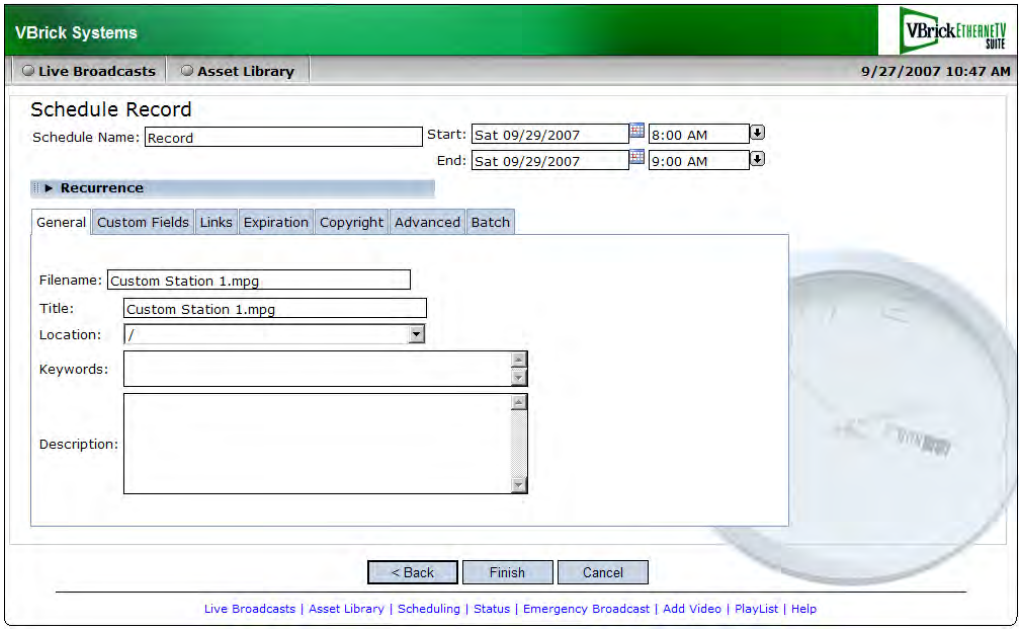
1. Select a live stream from the list of **Program Names**.
2. Go to **Advanced Settings > Record To** and select **NVR** or **VBrick**.

NVR	The recording will be saved to an NVR on the ETV Portal Server or to a standalone Network Video Recorder. See the *Portal Server Admin Guide* for more about NVRs.
VBrick	The recording will be saved to an MPEG-2 or WM VBStar.

Record to NVR

▼ To use an **NVR** to save the recording:

1. Select **NVR** and click **Next**. Use the tabbed windows explained below to define specific attributes for the recording. Some of these attributes (e.g. **Custom Fields** and **Links**) will be displayed on the **Info** page for the recording on the **Asset Library** page. Others (e.g. **Expiration** and **Copyright**) are used solely for administrative purposes.



General	
Filename	Name of file to be recorded. The default is based on the Program Name and device Type. If you schedule a recording with a recurrence pattern, the filenames are automatically appended with the date and time.
Title	Title to be shown on VOD server. No special characters or embedded spaces. Can be the same or different from Filename above. If you append `>d` or `>t` to title, it will include the date and time in mmddyy and hhmm format. For example, if you enter the record title as `history>d>t.mpg`, the recorded title will be `history0608051105.mpg` if the recording started at 11:05 AM on 06/08/05.
Location	Use the dropdown to select the folder in which the recording will be saved.
Keywords	Enter metadata text for Keyword search.
Description	Enter metadata text for Description search.

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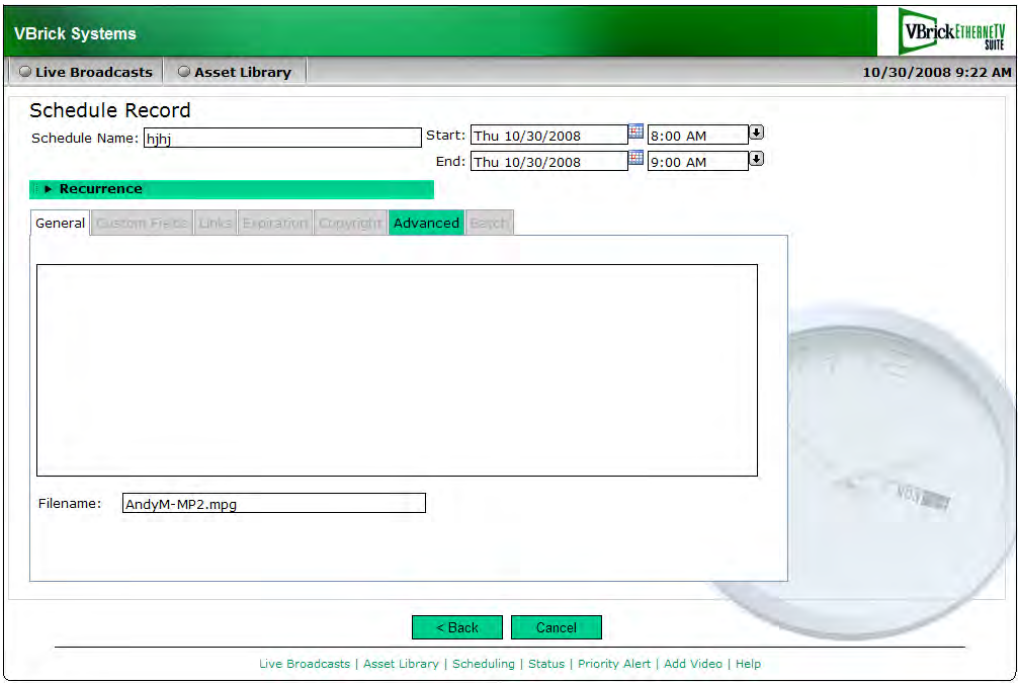
Custom Fields	
Field name	Shown only if custom fields are defined by an administrator.
Dropdown list	Shown only if custom dropdown lists are defined by an administrator.
Links	
Title	Link title shown on the Info page for the recording.
Web Page URL	Actual web URL displayed when you click on the title.
Expiration	
Expiration Date	Shown if current user has copyright and expiration privileges. Content will expire after specified date in format: mm/dd/yyyy hh:mm AM.
Viewing Period	Shown if current user has copyright and expiration privileges. Content will expire after the specified viewing period.
Copyright	
Max. Concurrent Viewers	Set the maximum number of concurrent viewers. Default = unlimited. Enter a value or select the default.
Advanced	
Add to VOD Server	Check to automatically ingest to VOD server.
Delete Recorded Fil eAfter Ingestion	Check to delete file from the Portal Server after ingestion to VOD server.
Overwrite Current File on NVR	Check to overwrite a file on the NVR with the same name.
Batch	
Enable Batch	Use to divide the recording into the specified number of batch files. The files are divided evenly for the duration of the schedule. Note that in "batch" mode, the record files are not FTPed and ingested: they are saved to D:\Inetpub\ftproot\MCS\Record and all other options are disabled.
Continuous Recording	Enable Batch must be selected. Records continuously for the specified number of seconds per file (ignoring the scheduled duration). • Recycle file number – reuses the file numbers after the specified number of batch files is reached. • Keep file number chronologically – appends new file numbers after the specified number of batch files is reached.
Overwrite File On Save	Check to overwrite a file on the VOD server with the same name.

2. When done click **Finish**, then verify the information and click **Create Schedule** to add the new schedule to the calendar.

Record to VBrick

▼ To use a **VBrick** (MPEG-2 or WM VBStar) to save the recording:

1. Select **VBrick** and click **Next**.



2. Enter a filename and then select a VBrick **ServerName**. This is the MPEG-2 or WM VBStar that will save the recording. Then click on the **Advanced** tab, and complete the other fields.

Filename	Filename of new recording. Filenames cannot exceed 25 characters and cannot include " : * ? < | [ ] If you append >d or >t to filename, it will include the date and time in mmddyy and hhmm format. For example, if you enter the record filename as history>d>t.mpg, the recorded file will be history0602081105.mpg if the recording started at 11:05 AM on 06/02/08. If you schedule a recording with a recurrence pattern, the filenames are automatically appended with the date and time.
Add to VOD Server	The recorded file will be ingested to all VOD servers. This option is available when a VBStar is configured as a VOD server.
FTP After Record (deprecated)	If an FTP server is configured, check this box to FTP the file after recording. Use this parameter for a VBStar it is not configured as a VOD server.
Overwrite Current File	Check to overwrite an existing file with the same name.

3. When done click **Finish**, verify the information, and click **Create Schedule** to add the new schedule to the calendar.

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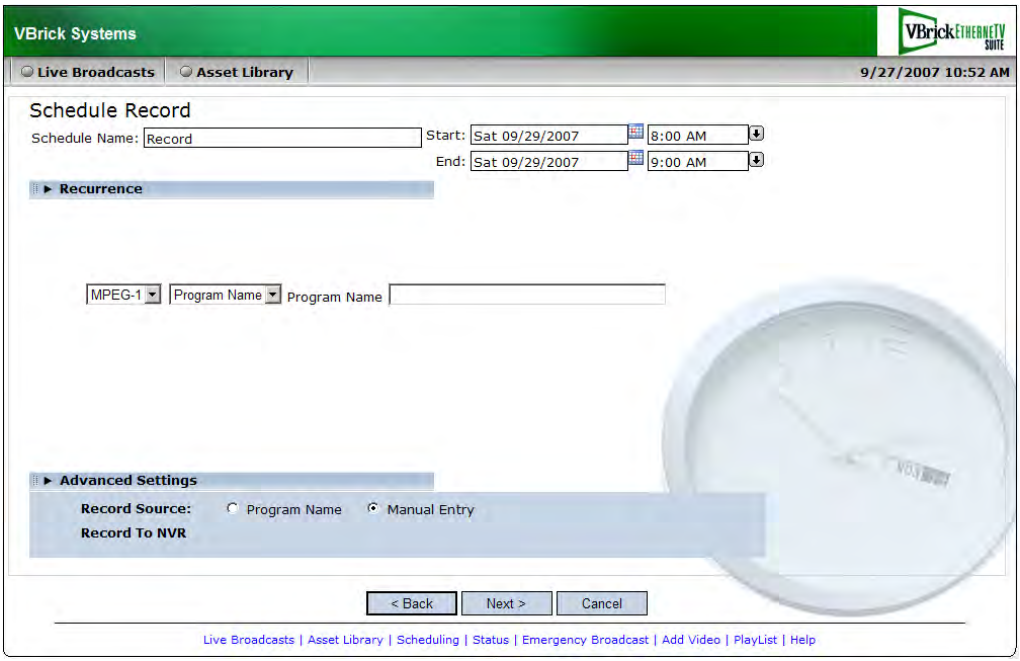
Record by Manual Entry

When the **Record Source** is **Manual Entry**, you can only **Record To** an NVR.

▼ To use **Manual Entry** as the record source:

1. Select a live stream from the list of **Program Names**.
2. Go to **Advanced Settings** and select **Manual Entry**.

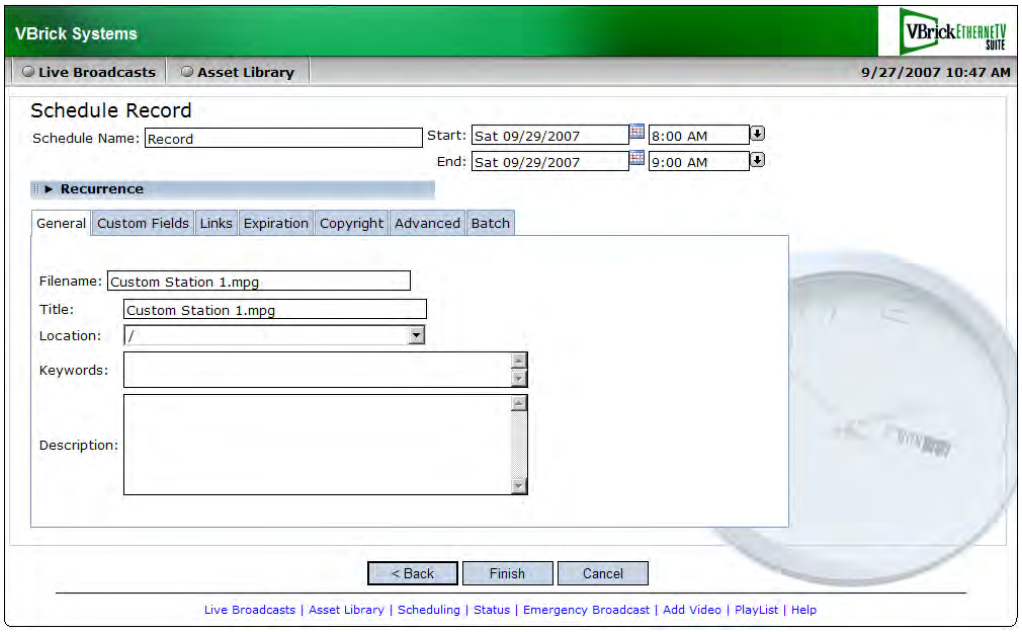


MPEG-1	Enter a Program Name, or IP Address and Port number.
MPEG-2	Enter a Program Name, or IP Address and Port number.

MPEG-4	Enter a Program Name or URL. If URL, use `VBHTTP` or `RTSP` in following format:
	`vbhttp://MPEG4Unit1/vbs1d1.sdp`
	`rtsp://172.2.3.4/vbrickvideo1`

WM	Enter a Program Name or URL.
H.264	Enter a Program Name or URL.

3. Select and define **MPEG-1**, **MPEG-2**, **MPEG-4**, **WM**, or **H.264** as the record source and click **Next**.



4. Use the tabbed windows to define specific attributes for the recording. These are the same fields described above in Record by Program Name.
5. When done click **Finish**, then verify the information and click **Create Schedule** to add the new schedule to the calendar.

Script

Scripts and Script Devices are created by Portal Server administrators. Use the following steps to create a schedule that will execute a previously-defined script on a previously-defined script device such as a camera or a VCR. This means that at the scheduled date and time the script will run against a networked script device. For example, PTZ cameras respond to pan, tilt, and zoom commands; these commands can be scripted and executed from the Portal Server. A script device must be physically connected to the network and must be available at the runtime of a scheduled event. See the *Portal Server Admin Guide* for a discussion of how to define script devices and create scripts.

▼ To schedule a script execution:

1. Select a schedule name, dates, and (optionally) recurrence pattern (see Scheduling an Event).
2. For **Schedule Type**, select **Script** and click **Next**.

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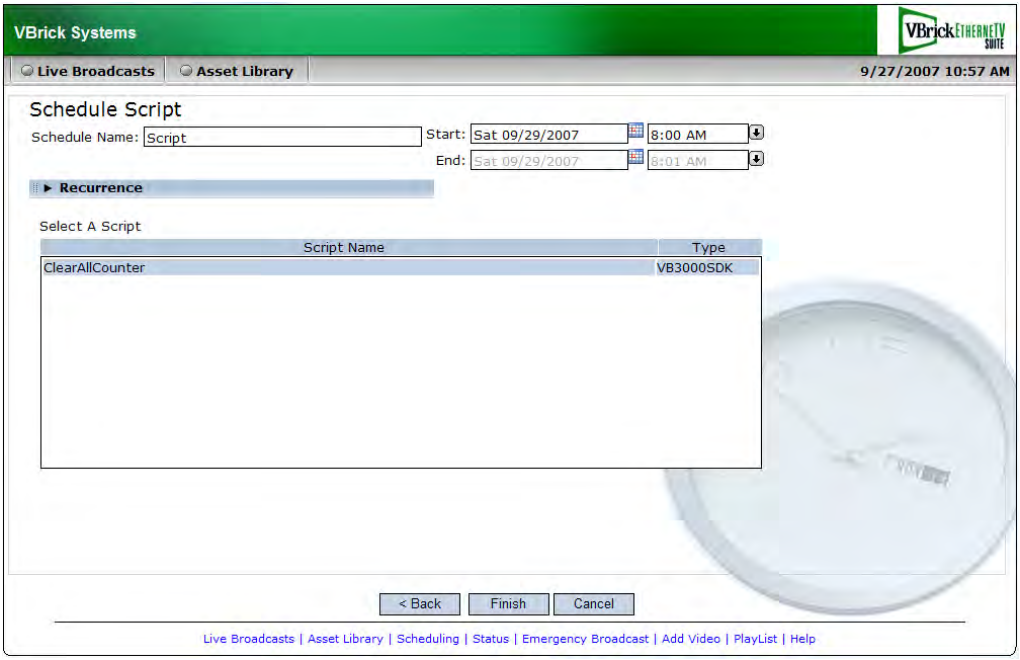
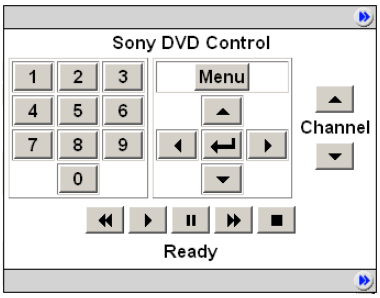


3. Select a previously-defined script and click **Finish**.
4. Verify the information and click **Create Schedule** to add the new schedule to the calendar.

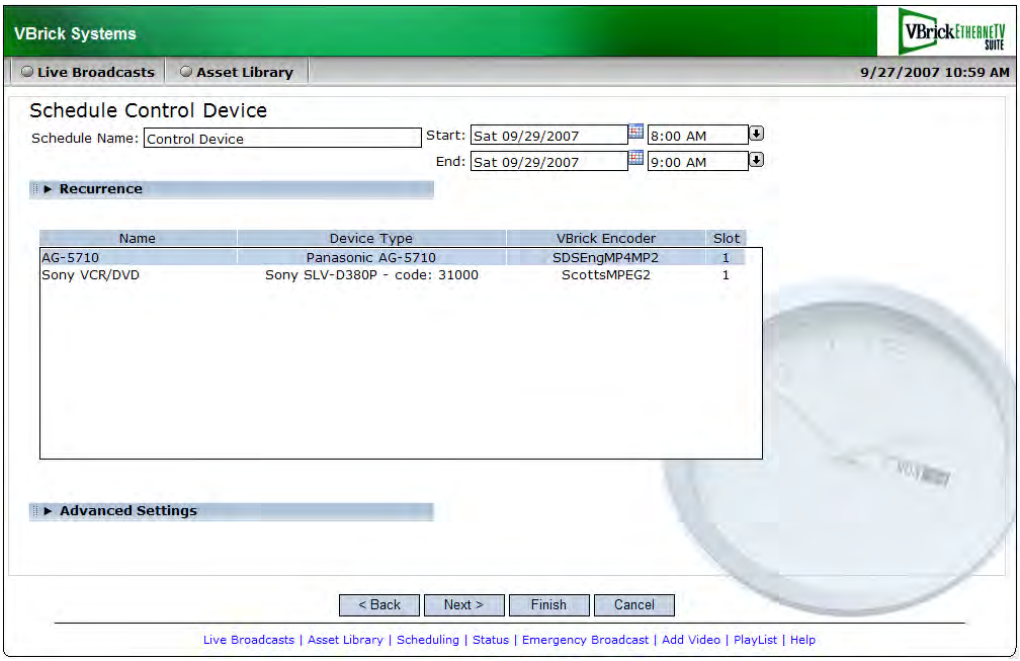
Control Device

Control devices are video sources like DVDs or VCRs that can be controlled by end users from the Portal Server. A control device is connected to a VBrick encoder. It allows client-side control of the device and must be configured by a system administrator. (If no control devices are configured, **Control Device** is not shown as a **Schedule Type**.) Once configured, a special icon on the **Live Broadcasts** page indicates that you can control a stream from the device using a graphical control panel similar to the one shown here. This panel is displayed when you launch the stream and you can use it for supported functions like **Start**, **Stop**, **Fast Forward**, etc.

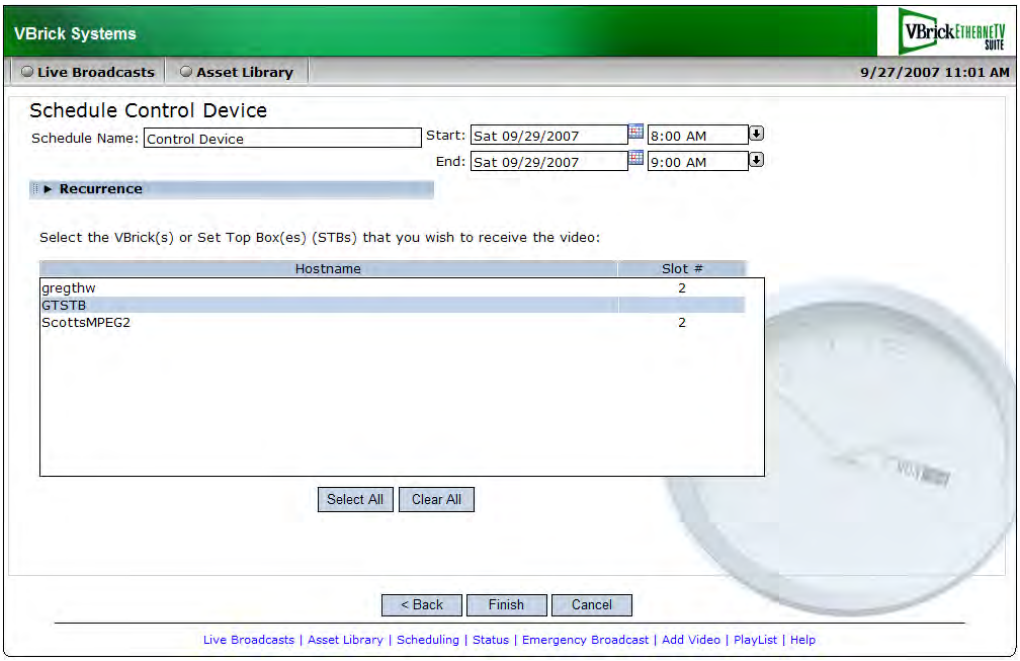


▼ To schedule a control device:

1. Select a schedule name, dates, and (optionally) recurrence pattern (see Scheduling an Event).
2. For **Schedule Type**, select **Control Device** and click **Next**.



3. Select a device and click **Next**.



4. Select the destination VBricks that will receive the video and click **Finish**.
5. Verify the information and click **Create Schedule** to add the new schedule to the calendar.

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Chapter 4

Using the Remote Controllers

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Using the VB-PC Remote

The VB-PC Remote is a hand-held infrared device you can use to control (stop/start/pause, etc.) any stream running on the Portal Server. The VB-PC Remote is compatible with Internet Explorer 6.0 or higher; it is not compatible with Firefox. The VB-PC Remote can be used for all Portal Server streams (MPEG, WM, and H.264) and has a line-of-sight range of approximately 40 feet. After you *manually* start a stream using the Portal Server interface, you can use the VB-PC Remote to control it. The VB-PC Remote includes an IR Remote Control and an IR Remote Receiver that has a USB connector at one end.

▼ To use the remote control

1. Launch the Portal Server and manually start any stream using the mouse pointer on your computer.
2. Control the steam by pointing the remote control at the receiver device and using any of the control buttons listed in Table 7. Only the buttons listed here are operational and the functionality varies slightly depending on whether you are viewing a live stream or a stored stream.

Table 7. VB-PC Remote Control Functions†

Button	Function	Live Stream	Stored Stream
Mute	Mute volume	X	X
Vol +, Vol -	Adjust volume	X	X
Play	Start playback	X	X
Pause	Pause playback		X
Stop	Stop playback	X	X
Full Screen	Go full screen	X	X
Fast-Forward	Fast-Forward		X
Rewind	Rewind stream		X
Record	Record stream	X	

† Only the buttons listed here are operational on the VB-PC Remote control.

Remember that your computer has the primary volume controls. You can use the **Vol+** or **Vol-** buttons on the remote control but you can't go any higher than the computer setting. For best results, set the volume to an intermediate level using the mouse, then you can use your VB-PC Remote to fine-tune the volume as desired. Use the **Full Screen** button to go full screen at any time and hide all Portal Server functionality. Press **Esc** on the keyboard (or **Full Screen** on the Remote) to exit full screen.

Using the Amino STB Remote

The Amino STB Remote is a handheld infrared device you can use to control live and stored MPEG-2 streams running on an Amino set top box. The Amino is fully integrated with the Portal Server, and with certain exceptions (e.g. you cannot **Add Video**), provides access to most Portal Server functionality. You use the Amino remote control (or the wireless keyboard) to navigate through the application and select streams. The buttons and functionality on the hand-held remote are explained in Table 8 starting at the top. See the *AmiNet110 User Guide* that was shipped with the device for more information. Note that the Amino set top box does not enforce copyright restrictions.

Note The Amino does not recognize "control devices" defined in the Portal Server. Any devices configured as **Control Devices** in the Portal Server will not display a "virtual" remote control panel on the Amino set top box. See the *Portal Server Admin Guide*.

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Table 8. Amino Remote Control Functions

Button	Function
Power	Power on/off.
STB/TV	Press STB for normal operation to communicate with the STB. Use TV to communicate with the TV.
0–9	PIN entry only. **Do not use to select channels.**
Left arrow	Enter.
Mute	Not used. (Use volume controls on TV).
AV	Not used.
Vol +/-	Not used. (Use volume controls on TV).
CH +/-	Page Up/Page Down.
Menu	Display the list of menu commands.
Blue arrow buttons	Up/Left – up one channel. Down/Right – down one channel. OK – Enter.
Shortcut buttons	Red – not used. Green – toggle stream information on/off. Yellow – toggle mouse pointer on/off. Blue – change screen transparency.
Rewind	Stored streams.
Play	Stored streams.
Pause	Stored streams.
Fast Fwd	Stored streams.
Record	Live streams.
Pg Up	Live or stored streams. Page up/down a list of streams.
Pg Down	Live or stored streams. Page up/down a list of streams.
Stop	Stored streams.
Refresh	Refresh page.
Pg Back	Not used.
Pg Fwd	Not used.
Home	Go to Portal Server Home page.

† If desired, you can program the remote to communicate with the TV. In order for the remote to transmit the correct signals to control the TV, it must be programmed with a 3-digit code that matches the TV. See the Amino Remote Controls User Guide for more information.

Using the Amino Menu

Click on **MENU** at the bottom of the window, or press the **MENU** button on the remote control, to access other Portal Server functionality. (Note that some Portal Server functions, e.g. **Add Video**, are not available on the Amino.) To return to the original program listing after viewing the menu, click **MENU** again. Note that you must have a wireless keyboard in order to use the **Search** command.

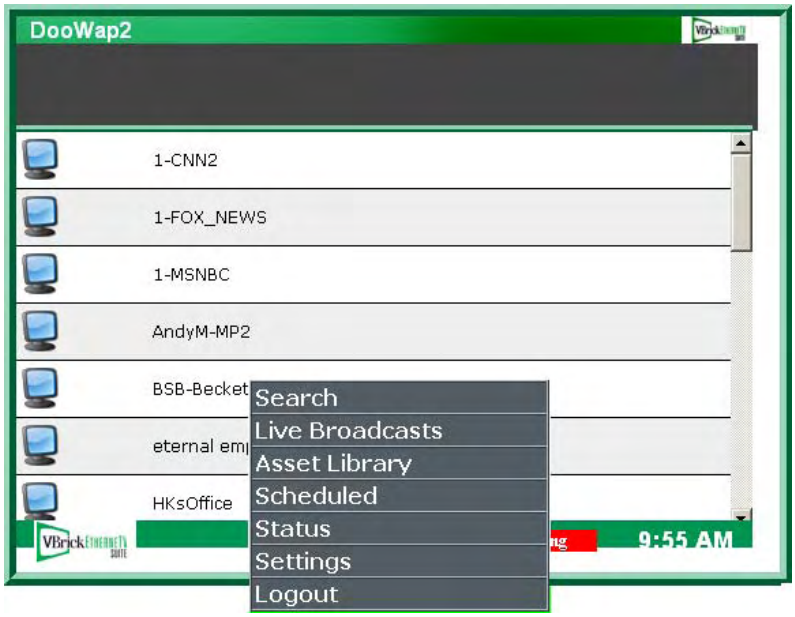

Table 9. Amino Menu Commands

Command	Description
Search	Search for live or stored content using text or keywords. You must have a wireless keyboard to use this function.
Live Broadcasts	View live streams (or rich media presentations) on the network.
Video Library	View pre-recorded content from VOD servers on the network.
Scheduling	View or create scheduled broadcasts of live or stored content.
Status	View the status of any videos currently being added or recorded.
Settings	Read-only view of current network settings.
Logout	Always log out when done.

Using the WM IPR Remote

This wireless remote control device is used with the WM IPR (also called the WM IP Receiver). You can use the IR (infrared) Remote Control in Portal Server mode and in Local mode; it is non-functional in Local-Fullscreen mode. (You can also plug a USB keyboard and mouse into the back of the IPR to perform all navigation tasks.) The infrared Remote Control works basically the same regardless of how the start mode is configured. It is important to note that many of the controls, for example Ch/Page up or down, have slightly different functionality depending on where the focus is. Also, several of the buttons are not mapped to any item and are non functional. Be sure to point the remote at the IPR—not at

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the TV. Also be aware that you may have one (or both) of two different Remote Control devices. Use the instruction(s) below that correspond to your model number. To determine model number, reboot the IPR and note the model number when the splash screen is displayed.

Using the 8000-0113-0002 Remote Control

Using the 8000-0113-0001 Remote Control

Using the 8000-0113-0002 Remote Control

Button	Function
Power	Unlabeled. Turn power on or off.
Mute	Mute the audio.
0–9	Portal Server mode. Enter a PIN, or enter a search string using the number keypad for text entry.
Arrows	Change focus to next item; select previous stream.
Info	Portal Server mode only. Displays information about the currently selected stream.
Back	Return to the previous page.
Search	Portal Server mode. Display the search window. Press Search again to exit window.
Record	Portal Server mode: Record stream. During recording, a red indicator is shown in lower right area of window.
Guide	Go to fullscreen; exit fullscreen.
Menu	Toggle the Menu on or off in Portal Server mode.
CH	Adjust the channel up or down.
Vol	Adjust the audio up or down.
Rew	VOD content only: Rewind the current stream.
Pause	VOD content only: Pause the current playing stream.
FF	VOD content only: Fast forward the current stream.
Stop	Close the current stream.
Play	Play the selected stream.
OK	Initiate an action or select an option depending on where the focus is.
Clear	Deletes the previous digit or character when entering search parameters or a PIN.
Enter	Press when input complete.
Live	Portal Server mode. Go to Live Broadcasts page.
VOD	Portal Server mode. Go to Asset Library page.
Sched	Display scheduled streams available for viewing.
Mark	Use to create a bookmark on the Portal Server.

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Using the 8000-0113-0001 Remote Control

Button	Function
Red	Unlabeled. Turn power on or off.
Standby	Place unit in soft standby.
Mute	Mute the audio.
Rew	VOD content only: Rewind the current stream.
Play	Play the selected stream.
Pause	VOD content only: Pause the current playing stream.
FF	VOD content only: Fast forward the current stream.
Replay	Reserved for future use.
Skip	Reserved for future use.
Stop	Close the current stream.
Rec	Portal Server mode: Record stream. During recording, a red indicator is shown in lower right area of window.
Back	Return to the previous page.
Info	Portal Server mode only. Displays information about the currently selected stream.
Arrows	Change focus to next item; select previous stream.
OK	Initiate an action or select an option depending on focus.
Guide	Go to fullscreen; exit fullscreen.
Menu	Toggle the Menu on or off in Portal Server mode.
Vol	Adjust the audio up or down.
F1–F4	Reserved for future use.
Page	Move to top, bottom, next, or previous page.
Live	Portal Server mode. Go to Live Broadcasts page.
VOD	Portal Server mode. Go to Asset Library page.
Sched	Display scheduled streams available for viewing.
Search	Portal Server mode. Display the search window. Press Search again to exit window.
Space	Enter a space when using the number keypad.
Mark	Use to create a bookmark on the Portal Server.
0–9	Portal Server mode. Enter a PIN, or enter a search string using the number keypad for text entry.
Del	Deletes the previous digit or character when entering search parameters or a PIN.
Enter	Press when input complete.

Using the STB Remote

This wireless remote control device is used with the Set Top Box (also called the Digital IP Receiver). The remote control unit is an infrared remote control device you point at the sensor *on the front of the STB above the LEDs*. As described below, the buttons on the remote control only work if the STB is configured for **MCS** or **Local** mode. If configured for **Local-Fullscreen**, you can only use the **Volume** and **Mute** buttons. The buttons on the handheld IR remote control are described in the following table from left to right and top to bottom.

Note If playing a file on an NXG VOD server in Local mode, the **Play** button on the IR remote will start (or re-start) the video from the beginning. For best results, use the **Channel** and **Select** buttons rather than the mouse controls.

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Stop, Play, Pause	Once a stream is selected, the buttons across the top can be used to stop, play, or pause a video. Stop and pause are useful when playing VoD streams.
Power	Power the STB on or off.
Begin/End	The outer buttons on the second row are not used.
Fast Forward/ Rewind	The middle buttons on the second row are used with VoD to go **Fast Forward** or **Rewind** MPEG-1 and MPEG-2 videos; not supported with MPEG-4.
Left Mouse Button	Green. Corresponds to left mouse button.
Cursor Pad	Press circular pad to move the cursor in the same manner as you move a mouse.
Right Mouse Button	Black. Not used.
Help	Not used.
Up/Down Arrows	Page up and down menus.
Info	Provides useful information about a live stream or a video in progress. MCS Start Mode only.
Mute	Mute/un-mute the sound.
Select	Yellow. Selects the currently highlighted stream or menu selection.
Volume	Adjust volume up or down.
Full Screen	Press for Full Screen; press again to close.
Channel	Press up or down to page through streams or videos.
TV	Opens Watch Television page. MCS Start Mode only.
WWW	Launches a web browser if enabled.
VOD	Opens Video on Demand page. MCS Start Mode only.
0–9	Use to enter a PIN if security is enabled.
Record	Red. Press once to start recording if ETV Portal Server and video-on-demand servers are present; press again to stop recording.
Menu	Displays the Menu commands.

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VBrick Systems, Inc.
12 Beaumont Road
Wallingford, Connecticut 06492, USA